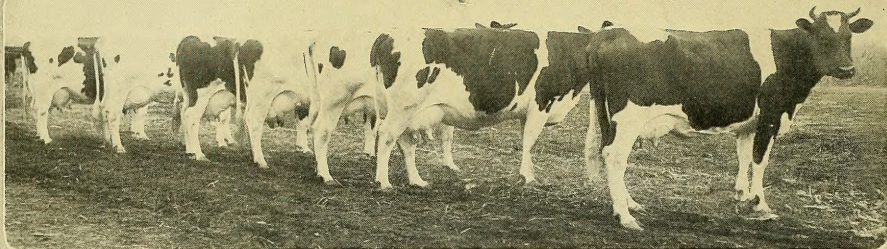


The Double-Profit System of Dairying

Makes the Farmer a Good Customer



One Profit From His Dairy Cow—
Another From His Own Creamery
Give Him Two-Fold Buying Power



DAIRY HERD—SOURCE OF ONE PROFIT.

Pure Bred Holsteins of W. F. Schilling, Dairy Editor, Farm, Stock and Home.

Dairy farmers in Minnesota and surrounding states practice a system of dairying and co-operative creamery butter making which gives them a practical control of their markets, a monthly cash income, and *double profits*, from two distinct sources:

- One profit from their own dairy herds.
- Another profit from their own co-operative creameries.

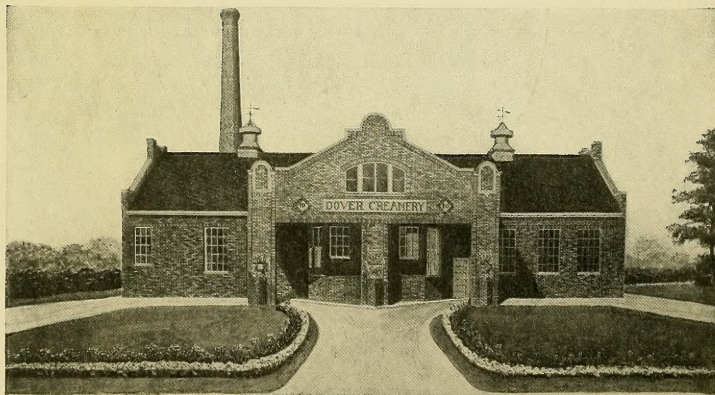
This system is more highly developed in Minnesota than anywhere else and has spread into adjoining states.

It has made Minnesota the banner butter producing state.

It has also made Minnesota, Wisconsin, the Dakotas and Montana the fastest growing dairy region of America.

How it multiplies farm wealth and creates markets for good merchandise is clearly proven by the evidence on the following pages.

The facts shown are worthy the earnest attention of every manufacturer or advertiser who wants the farmer for a customer.



FARMERS' CO-OPERATIVE CREAMERY—SOURCE OF THE SECOND PROFIT.

The Double-Profit System of Dairying

A COMPLETE SURVEY
OF THE DAIRY INDU-
STRY SHOWING THE
REGIONS THAT ARE
TO SUPPLY THE
WORLD'S DEMAND
FOR DAIRY PRODUCTS
AND THE MARKETS
CREATED FOR GOOD
MERCHANDISE. :: ::

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by

FARM, STOCK
■ and HOME ■
MINNEAPOLIS, MINNESOTA

The Paper That Founded the Farmers' Creameries

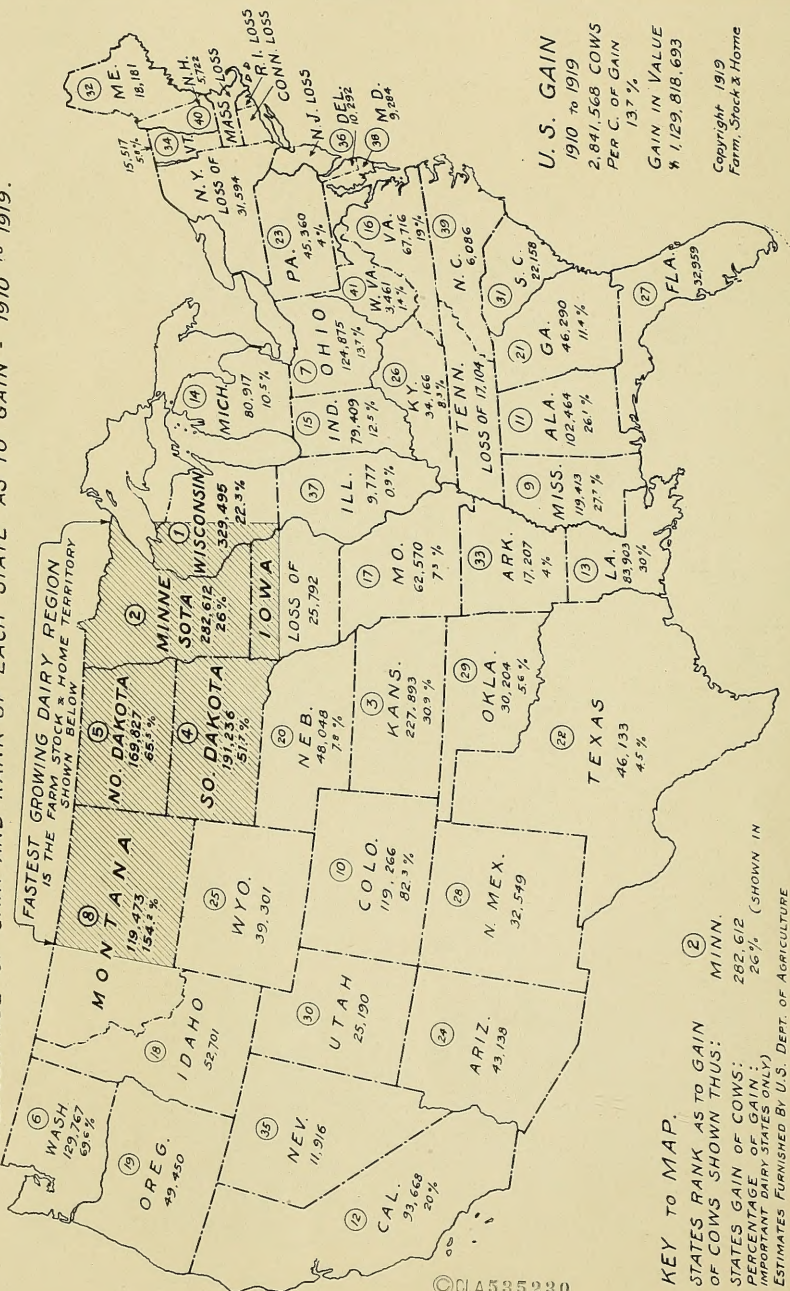
PERMISSION IS GRANTED TO REPRINT IF DUE CREDIT IS GIVEN.
COPIES OF MAPS WILL BE FURNISHED FREE.

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MAP NO. 1

GAIN OF DAIRY COWS

PERCENTAGE OF GAIN AND RANK OF EACH STATE AS TO GAIN - 1910 TO 1919.



KEY TO MAP.

STATES RANK AS TO GAIN OF COWS SHOWN THUS:

STATES GAIN OF COWS:

PERCENTAGE OF GAIN:

IMPORTANT DAIRY STATES ONLY

ESTIMATES FURNISHED BY U.S. DEPT. OF AGRICULTURE

THE FASTEST GROWING DAIRY REGION

Largest Increases in Dairy Cows are in the Farm, Stock and Home Group. Compare with map No. 2, "Total Dairy Cows". Copies of these maps furnished free.

U. S. GAIN
1910 to 1919
2,841,568 COWS
PER C. OF GAIN
137 %
GAIN IN VALUE
% 1,129,818,693

Copyright 1919
Farm, Stock & Home

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The Fastest Growing Dairy Region

The fastest growing dairy region in the United States is clearly shown by this map to be the FARM, STOCK & HOME group of states.

Notice their position also as to gains of dairy cows on Table No. 1 below:

WISCONSIN first, MINNESOTA second, SOUTH DAKOTA fourth, NORTH DAKOTA, fifth, MONTANA eighth.

Their percentages of gain are also the highest of any group of important dairy states.

WISCONSIN, 22.3%, MINNESOTA 26%, SOUTH DAKOTA 51.7%, NORTH DAKOTA 65.5%, MONTANA 154.2%.

These states also made remarkable gains during the war, while other states suffered sharp declines, as shown by Table No. 2 below.

These gains are due largely to the Double-Profit System practiced by their dairy farmers, described on page 6. This region corresponds exactly with the Double-Profit region as shown on pages 4 and 5. It is also the region where the dairymen's favorite paper is FARM, STOCK & HOME—"The Paper that Founded the Farmers' Creameries."

The total gain since 1910 in these five states (1,092,643 cows) is 38.4% of the entire United States gain (2,841,568 cows). Their percentage of increase is 30.5% as compared with the United States percentage (13.7%). Their average value per cow is \$81.80, as compared with the United States average (\$78.24). Their increase in value is \$46.22 per cow, as compared with the United States increase (\$44.00).

TABLE NO. 1

The Twelve States That Gained the Most Cows

(90,000 or more from 1910 to 1919). (Iowa, New York and other Eastern States show Losses of Cows).

Estimates Furnished by U. S. Department of Agriculture

| Rank as to Gain | Cows Gained Since 1910 | Percentage of Gain | Total No. of Cows, 1919 | Value Per Cow 1919 | Value Per Cow 1910 |
|------------------|------------------------|--------------------|-------------------------|--------------------|--------------------|
| 1. WISCONSIN* | 329,495 | 22.3% | 1,803,000 | \$82.00 | \$34.55 |
| 2. MINNESOTA* | 282,612 | 25.0% | 1,368,000 | 78.00 | 30.66 |
| 3. Kansas | 227,893 | 30.9% | 964,000 | 81.00 | 33.01 |
| 4. SOUTH DAKOTA* | 191,236 | 51.7% | 561,000 | 82.00 | 31.11 |
| 5. NORTH DAKOTA* | 169,827 | 65.5% | 429,000 | 80.00 | 33.72 |
| 6. Washington | 129,767 | 69.6% | 216,000 | 75.00 | 42.89 |
| 7. Ohio | 124,875 | 13.7% | 1,030,000 | 83.50 | 37.52 |
| 8. MONTANA* | 119,473 | 154.2% | 197,000 | 87.00 | 43.95 |
| 9. Mississippi | 119,413 | 27.7% | 549,000 | 60.00 | 22.36 |
| 10. Colorado | 119,266 | 82.3% | 264,000 | 88.00 | 41.19 |
| 11. Alabama | 102,464 | 26.1% | 494,000 | 58.00 | 21.89 |
| 12. California | 93,668 | 20.0% | 561,000 | 79.00 | 39.79 |
| United States | 2,841,568 | 13.7% | 23,467,000 | \$78.24 | 34.34 |

* FARM, STOCK & HOME States.

Seventy per cent of the United States gain is in these twelve states.

TABLE NO. 2

Gains and Losses of Cows During Years 1917 and 1918

Notice how rapidly the FARM, STOCK & HOME Group gained Cows.

Estimates furnished by the U. S. Department of Agriculture.

| Cows Gained | Cows Lost | Cows Gained | Cows Lost |
|----------------------------|--------------------------|-----------------------|-------------------------|
| *MINNESOTA 66,000 | New York 61,000 | Ohio 80,000 | Nebraska 14,000 |
| *WISCONSIN 53,000 | Iowa 24,000 | Kansas 64,000 | California 30,000 |
| *SOUTH DAKOTA 37,000 | Texas 115,000 | Missouri 44,000 | Washington 47,000 |
| *NORTH DAKOTA 4,000 | Pennsylvania 1,000 | Illinois 3,000 | Oregon 3,000 |
| *MONTANA 37,000 | Michigan 17,000 | Indiana 7,000 | |

Oklahoma, Colorado, Mississippi, Alabama, Kentucky and Virginia Increased their cows.

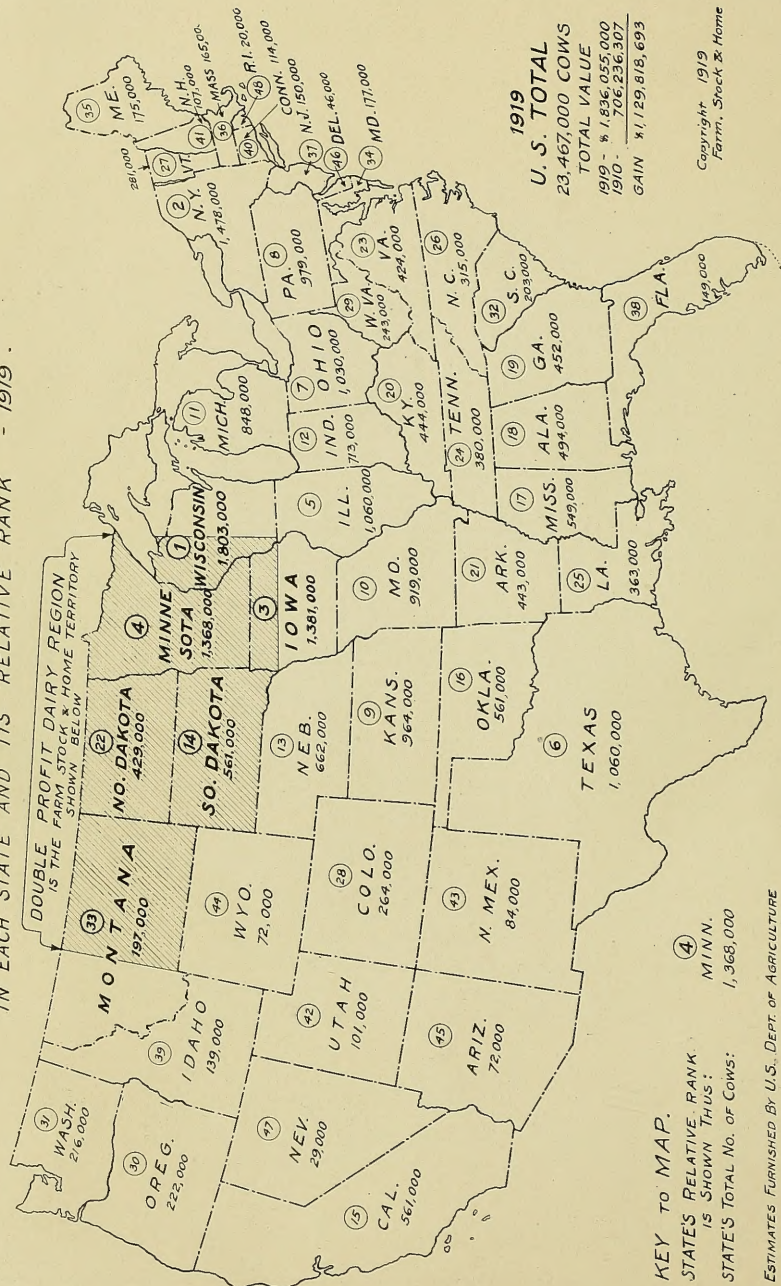
United States gain 573,000

* FARM, STOCK & HOME States.

This group also makes a remarkable showing as to: Increases of Hogs and Cattle, 1910-1919; Table No. 7, page 12. Gains and Losses, Hogs and Cattle, 1917-1918; Table No. 8, page 13. Increases of Farms and Crop Acreage; Table No. 12, page 21.

MAP NO. 2

TOTAL DAIRY COWS IN EACH STATE AND ITS RELATIVE RANK - 1919.



1919
U.S. TOTAL
23,467,000 COWS
TOTAL VALUE
1919 - \$ 1,836,055,000
1910 - 706,236,307
GAIN \$1,129,818,693

Copyright 1919
Farm, Stock & Home

THE GREAT DOUBLE-PROFIT DAIRY REGION

Co-operative Butter Making Increases Farm Wealth in the Farm, Stock and Home Group.
Compare with map No. 1, "Gain of Dairy Cows". Copies of these maps furnished free.

The Great Double-Profit Dairy Region

The Double-Profit System of Dairying is most highly developed in the three leading dairy states, Minnesota, western Wisconsin and northern Iowa, as shown on this map.

It is making rapid progress also in the three fast-growing dairy states, the Dakotas and Montana.

This region exactly corresponds with the Fastest-Growing Dairy Region, shown on page 3.

It is exactly the territory in which the dairymen's favorite paper is FARM, STOCK & HOME, "the paper that founded the Farmers' Creameries."

MINNESOTA leads the United States in farmers' co-operative creameries, butter production and butter quality. Only three other states have more cows; only two exceed its total dairy production; none other produces as fine a grade of butter.

WISCONSIN leads the United States in cheese, total production and total cows. The Creamery Butter-Making counties are largely in the western part, near Minnesota, as shown by Map No. 6 on page 14. It supplanted New York as first dairy state several years ago.

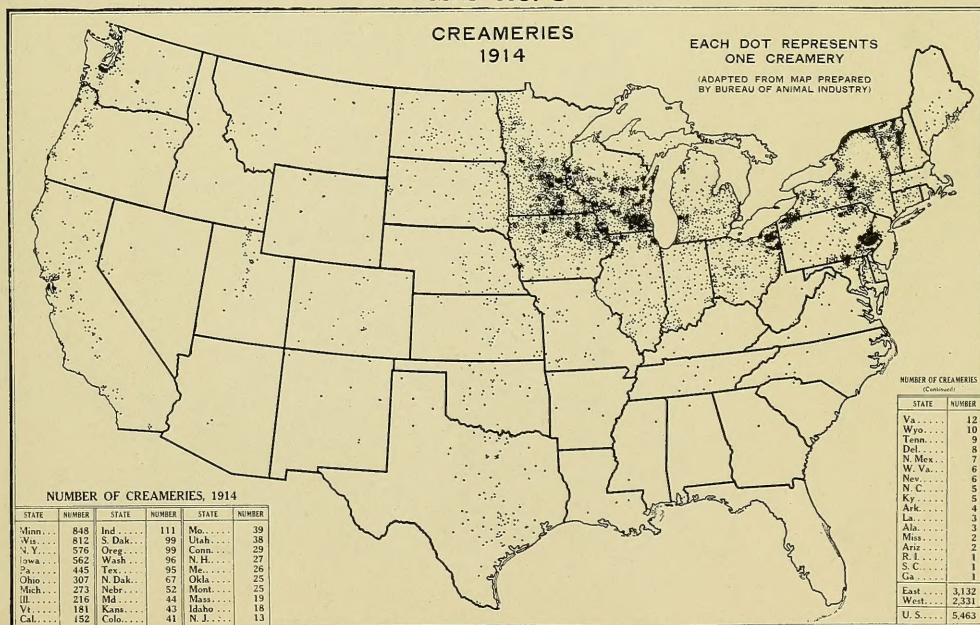
IOWA'S creameries also are largely in the northeastern part, near to Minnesota, as shown by Map No. 5 on page 14. It has been supplanted by Minnesota as to total production and creamery butter production.

Comparisons of the production in Minnesota, Wisconsin, Iowa and New York are shown on pages 16 and 17.

THE DAKOTAS AND MONTANA, influenced by these great nearby dairy states, are increasing both their creameries and dairy cows more rapidly than any other group in the country. South Dakota has advanced to 14th place in 1919 from 22nd in 1910; North Dakota to 22nd from 27th; Montana to 33rd from 41st, as to dairy cows. Full production estimates are shown on page 17.

Future dairy progress is better assured in the FARM, STOCK & HOME group than in any other region. It has the grasses, cool climate, fertile and well-watered soils of a natural dairy country. It also has the Double-Profit System of Dairying and creamery butter-making to insure its permanence. This is proven by the map below.

MAP No. 3



From 1915 Yearbook of Agriculture. Copies of these maps furnished free.

Cows, Creameries and Co-operation Pay Double Profits

The Dairy Farmer, America's true landed aristocrat, has been called "a regular farmer, **plus.**" And the dairyman in Minnesota and surrounding states is truly "a regular Dairy Farmer, **plus.**"

He practices a system of dairy farming that returns him **two profits instead of only one.** This makes him and his family the very best kind of customers for all kinds of quality merchandise.

Source of the Second Profit

It is generally known that the dairyman has all the needs and desires of an ordinary farmer, **plus** many others created by his complex, specialized business, and also, **plus** an increased income with which to gratify them. A large majority of Minnesota's farms are dairy farms. Their owners, however, have added to their incomes still another profit, besides other advantages, by organizing hundreds of co-operative creameries. These are owned and managed by the dairy farmers themselves.

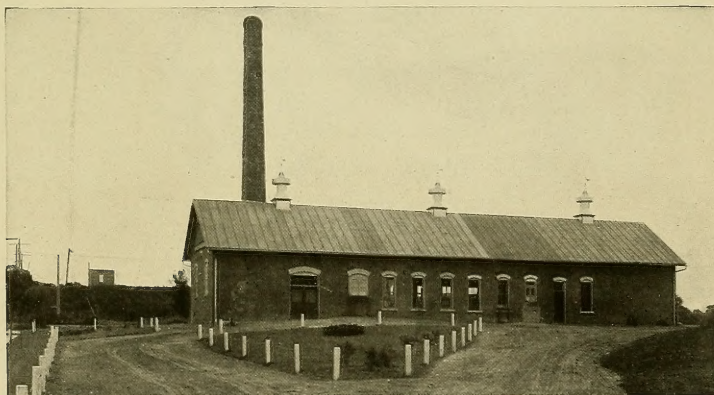
Creameries Create New Wealth

These creameries are located in the farming districts, near to the dairy farms. They buy fresh

cream or butterfat daily, manufacture it into high-grade butter, sell it at premium prices on the eastern markets and then distribute **all their profits** to their farmer patrons. The creamery patron thus enjoys all of the income and profit from his own dairy farm, plus his share of the creamery profits also. No better method has ever been devised for returning to the farm producer all of the profits of his labor and industry. Naturally he can buy, and does buy many things that other farmers cannot afford.

Advantages of Dairy Farming

Of itself, dairy farming is the highest type of agriculture that man has developed. It approximates the ideal form of converting raw materials from the soil into finished food products for mankind's use. It is the safest kind of farming, because it constantly renews the fertility of the fields. It is the most profitable because dairy products are so vital to human life that they cannot be supplied in any other form. The demand always exceeds the supply.



COURTESY KING VENTILATING CO.

STATE EXPERIMENTAL CREAMERY, ALBERT LEA, MINNESOTA.

The only state-owned creamery in the country is at Albert Lea, Minnesota, where new methods are tried out. Formerly a co-operative creamery, it still distributes the profits to its patrons.

The Double-Profit System of Dairying

Dairying is said to contribute more to the wealth and comfort of mankind than any other one industry. Certainly it is indispensable to civilized life. It is said that the average richest man in America is the average dairy farmer.

The True Double-Profit System

The Northwestern dairyman has not been content, however, with all these advantages or with the single-profit system of producing a raw product like milk or cream. That of itself is a profitable business. He and his neighbors, however, have become successful merchandisers of the finished manufactured article, creamery butter. Mr. Dairyman himself pockets the profits, instead of passing them along to anyone else.

Leading Creamery Butter State

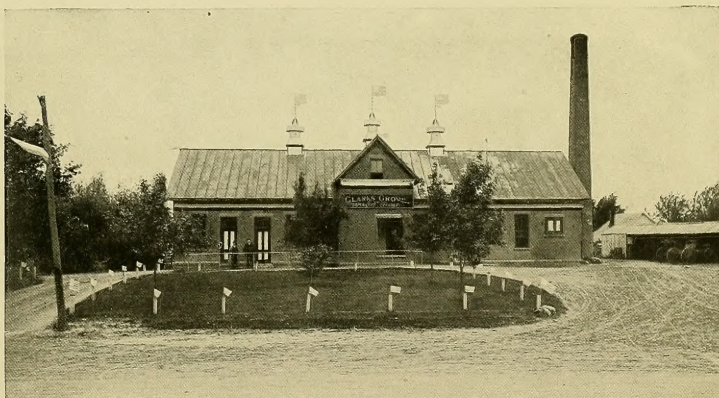
So successful is this industry that Minnesota has long been the leading creamery butter producing state. It has 841 creameries, of which 643 are co-operative. No other state has as many co-operative creameries. Minnesota's butter production, the largest in the country, was more than 132,000,000

pounds in 1918, and sold for more than \$63,400,000. Of this the co-operative creameries contributed about 83,500,00 pounds and distributed their entire profits among their patrons. This was an income in addition to \$57,000,000, which is about the total amount paid to farmers by all the creameries for butterfat, and also in addition to the farm profits made in producing this raw material. The average price paid for butterfat was about 52 cents a pound. The average price received for butter was about 48.5 cents a pound. See Table No. 3, page 11.

Third State as to Production

The total dairy production in 1918 was about \$134,000,000, and was exceeded only by Wisconsin and New York. It surpassed Iowa, the third state as to number of cows.

Full production reports by counties for 1918 are shown on page 11. When compared with those of the three other leading dairy states, Wisconsin, New York, and Iowa, as on pages 16 and 17, they prove Minnesota's supremacy as the greatest butter producing state.



COURTESY KING VENTILATING CO.

CLARKS GROVE CREAMERY, CLARKS GROVE, MINNESOTA.

The first successful Minnesota co-operative creamery, started 1890 by a group of Danish dairymen in Freeborn County, a model for other co-operative creamery organizations.

Minnesota Butter Wins the Prize Banners

Minnesota co-operative creamery butter is always in great demand because of its superior quality.

It always commands a premium price on the most discriminating eastern markets. It has won all but two of the seventeen prizes ever offered in interstate contests during the past 20 years, viz.: twelve prize banners offered by the National Creamery Buttermakers' Association in their annual competitions, the grand prize at St. Louis Exposition in 1904, and two International Dairy Show cups.

It was chosen to supply the Navy in 1918, the standard set being so high that the Government was compelled to come to 52 Minnesota co-opera-

tive creameries for it. A state brand of high standard butter has been established, which twelve creameries have qualified to manufacture.

Investigations made by the state have shown, too, that the co-operative creameries pay the farmer a higher average price for butterfat, or about 52 cents a pound in 1918, than the city creameries or "centralizers," which rely on cream shipments, can afford to pay. A cash settlement for this is made with the farmer monthly or oftener and many of the creameries distribute their profits monthly as well.

This system also gives the dairyman a practical control over his ultimate markets. The standard of fine, uniform quality is maintained and the butter is sold as a high-grade product. The producer is in the enviable position of being the manufacturer of a trade-marked article, who produces his own raw materials at cost and controls his own prices and outlet.

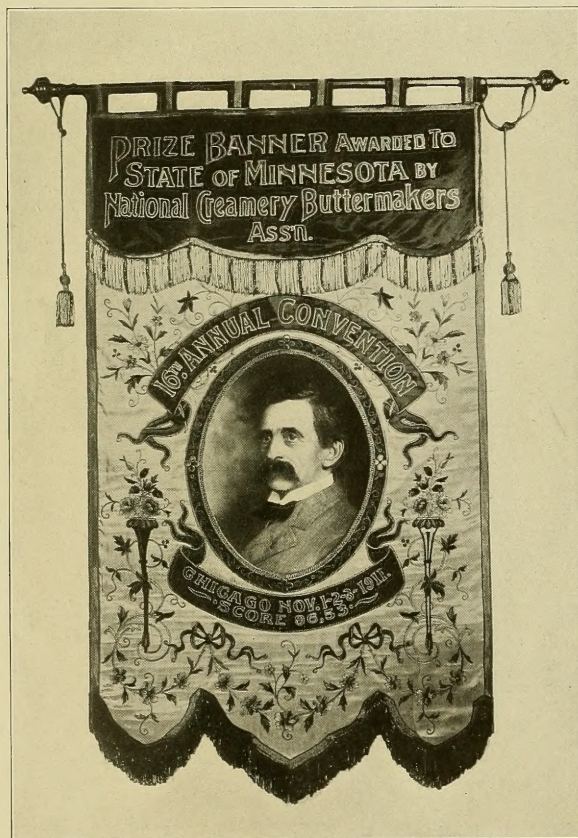
He reaps a harvest in the milk pail daily. He has a monthly instead of a yearly pay day—does not have to wait until fall to cash in. He pays his bills promptly and has a frequent turn-over of his working capital like any other successful business man.

Could any condition be more ideal for multiplying farm wealth and creating markets for good merchandise?

Herewith is shown one of the prize banners with a portrait of Prof. T. L. Haecker, one of the world's greatest authorities on dairying, known as "The Father of the Co-operative Creameries," because, as founder also of the Minnesota Dairy School, he contributed more to up-building of the state's dairy and creamery industry than any other one man. For twenty years he was Dairy Editor of *FARM, STOCK & HOME*, which fought his political battles and sustained all of his efforts to develop dairying. Sidney M. Owen, the paper's founder and editor, said:

"If I have never done anything else worthy of credit, the help I have given Prof. Haecker in pushing through his great work makes me feel that I have not lived in vain."

Thus it may truly be said that "*FARM, STOCK & HOME* is the Paper that Founded the Farmers' Creameries." The story of the work of these two men is told on page 30.



One of the Prize Banners Awarded Minnesota Butter.

Markets Created by Individual and Centralized Creameries

Mention must be made also of the markets afforded by the individual creameries and the centralizers, the direct competitors of the co-operative creameries.

Most of the Individual Creameries are in the country, operated on the same plan as the Co-operatives except that they do not distribute their profits to their patrons. Many of their owners and stockholders are farmers, however. They also produce good butter and afford a ready-cash market for cream.

The Centralizers are city establishments, most of which are larger than any one country creamery. Minneapolis and St. Paul each has ten, Duluth has two and the state has 39. They draw cream shipments from a wide radius, including other states. Their large capacity makes them keen rivals of the co-operatives. But the latter have the advantage of being closer to fresh cream supplies and produce a higher grade of butter. With this they hold their own on the markets by merit.

The centralizers afford a market for cream in many communities where dairying is not far enough advanced or cows are not numerous enough to support a local creamery. This is a very valuable service. It has helped many localities to get a start in dairying, and has proven beneficial to the industry.

Butter production in Minnesota is divided among the three as follows:

| | 1917 | 1918 |
|-------------------------|------------|--------------------|
| | Pounds | Approximate Pounds |
| Co-operative creameries | 75,325,732 | 83,500,000 |
| Individual creameries | 12,919,109 | 14,000,000 |
| Centralizers | 33,860,054 | 35,000,000 |

Minnesota has also 85 cheese factories, which produced in 1917, 6,421,148 pounds of cheese worth \$1,481,196.54 (1918 estimates, \$1,640,054), and paid out to patrons for milk, \$1,340,329.08. Fifty-two of these are co-operative also and so add to the Double-Profit System of Dairying.

The Ice Cream factories, also buyers

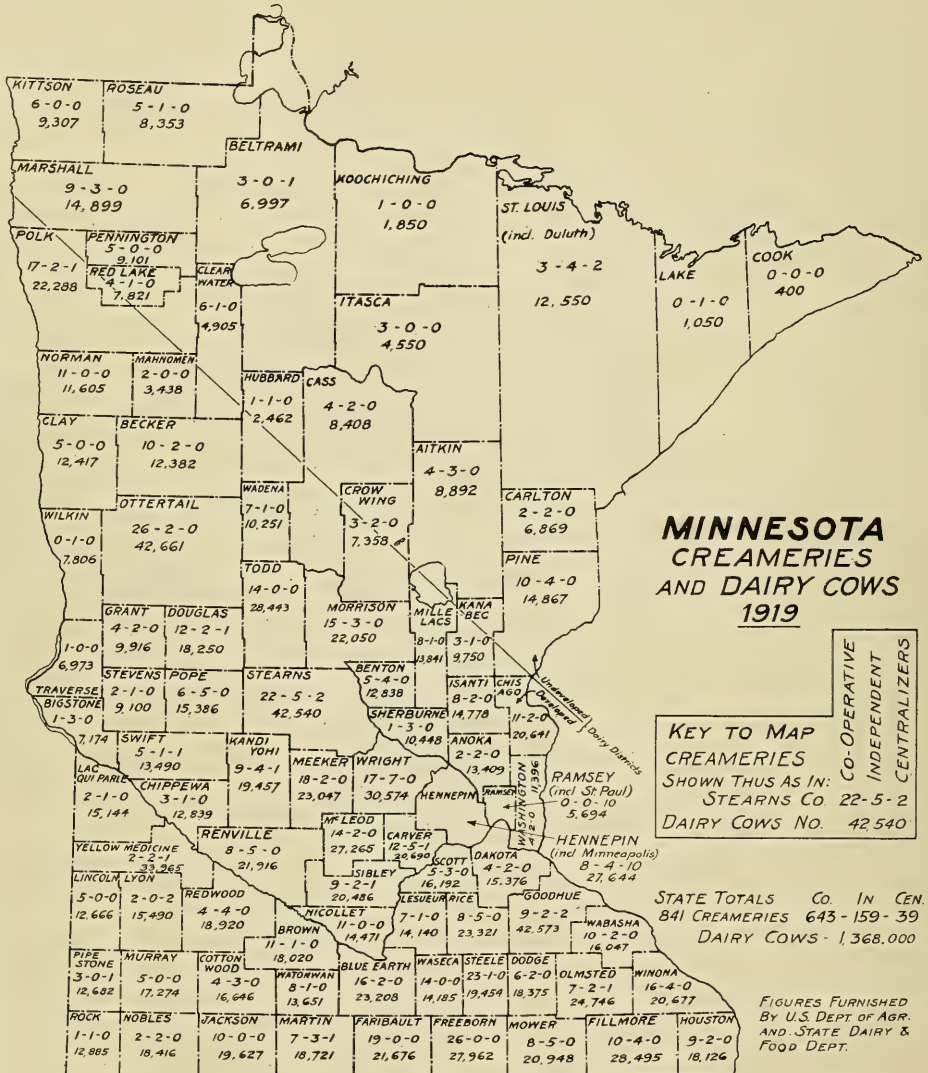
of separated cream, number about one hundred and are increasing rapidly now, stimulated by the advancement of prohibition. Their production adds two million dollars more to the state's annual dairy wealth. Condensaries and powdered milk factories number three each.

Another one of the twelve prize banners won by Minnesota in keen competition with other dairy states is shown below. The association that awards these prizes naturally includes in its membership the most discriminating judges of good butter in the country.



Another of the Banners Won by Minnesota Butter.

MAP No. 4



FARM, STOCK and HOME is the Paper that founded the Farmers' Creameries

Compare with map No. 9 and notice how farmers in the developed Creamery and Dairy counties are buying automobiles. Note also that only one half of the state is a developed Dairy district. The other half has wonderful dairying possibilities. Copies of these maps furnished Free.

The Double-Profit System of Dairying

How the Double-Profit System Creates Wealth

Minnesota Creameries Produce More Than
\$63,000,000 Worth of Butter and Pay
Out Nearly \$57,000,000 to
Dairymen in 1918

The millions paid for butterfat go directly to the dairy farmer, in addition to all the profits on every pound sold by co-operative creameries. They manufacture about two-thirds of the total production. Cash settlements are made monthly or oftener and the farmer actually receives 77 cents out of every dollar of the retail price. (See page 38.)

The price paid for butterfat averaged in 1918 about 52 cents a pound by the co-operative creameries and about 48 cents by the others. The average price received for all butter was about 48.5 cents.

Ramsey County, including St. Paul, and Hennepin County, including Minneapolis, with ten centralizers each, naturally lead in total production.

Twenty-one other counties (Table No. 5) each produce from \$1,000,000 to nearly \$3,000,000 worth. Nearly all of them distribute more than \$1,000,000 a year to farmers for butterfat. Of these, 11 lie south of the Twin Cities: Blue Earth, Faribault, Fillmore, Freeborn, Goodhue, Martin, Mower, Olmsted, Pipestone, Steele and Winona. Four lie directly west: Carver, McLeod, Meeker and Wright. Six lie north: Douglas, Mille Lacs, Morrison, Ottertail, Stearns and Todd.

TABLE NO. 3.
HOW FARMERS' CREAMERIES DISTRIBUTE WEALTH.

Summary of Reports Received from 233 Co-operative Creameries in Different Sections of Minnesota for March 1919, By A. J. McGuire, Agricultural Extension Division, University of Minnesota.

| No. of Creameries | Price Paid for Butterfat | Av. Net Price Recd. for Butter | Av. Amt. Butterfat Recd. |
|-------------------|--------------------------|--------------------------------|--------------------------|
| 5 paid 77 cents | 65.53 | 14.497 | |
| 6 paid 76 cents | 63.56 | 19.774 | |
| 17 paid 75 cents | 63.81 | 15.145 | |
| 12 paid 74 cents | 62.19 | 15.356 | |
| 18 paid 73 cents | 62.00 | 15.250 | |
| 22 paid 72 cents | 62.24 | 10.630 | |
| 16 paid 71 cents | 60.75 | 14.793 | |
| 30 paid 70 cents | 60.39 | 9.558 | |
| 17 paid 69 cents | 60.44 | 9.971 | |
| 18 paid 68 cents | 61.15 | 9.599 | |
| 12 paid 67 cents | 60.96 | 5.259 | |
| 13 paid 66 cents | 60.82 | 5.004 | |
| 12 paid 65 cents | 60.30 | 6.625 | |
| 7 paid 64 cents | 59.48 | 6.016 | |
| 6 paid 63 cents | 58.99 | 9.931 | |
| 5 paid 62 cents | 58.5 | 8.508 | |
| 2 paid 61 cents | 57.14 | 5.964 | |
| 5 paid 60 cents | 60.19 | 5.175 | |
| 2 paid 59 cents | 60.00 | 9.352 | |
| 4 paid 58 cents | 55.58 | 5.558 | |
| 3 paid 57 cents | 59.50 | 6.103 | |
| 1 paid 56 cents | 59.00 | 2.700 | |

Average net price paid by above 233 co-operative creameries, 70.53 cents.

Average net price, New York extra butter, 61.82 cents.

TABLE NO. 4.
MINNESOTA DAIRY PROGRESS SINCE 1905.

| Creameries, Co-operative | Ind. Cent. | Butter Made, Pounds | Butter Sold, Amt. Recd. |
|--------------------------|------------|---------------------|-------------------------|
| 1906 | 555 | 171 | \$18,364,320.06 |
| 1910 | 560 | 190 | \$9,668,216.26 |
| 1914 | 622 | 222 | \$20,806,398.78 |
| 1918 | 643 | 198 | \$32,876,546.63 |

TABLE No. 5
Compiled June 15, 1919, from 1918 reports of Creameries, to James Sorenson, Minnesota Dairy and Food Commissioner. Approximate figures subject to revision in commissioner's final report.

| COUNTY | Co-op. | Ind. | Crem. | Creamery Patrons | Cows of Cr. Patrons | Butter Made Pounds | Butter Fat, Amt. Paid | Butter Sold, Amt. Received |
|-----------------|--------|------|-------|------------------|---------------------|--------------------|-----------------------|----------------------------|
| Totals | 643 | 159 | 39 | 117,276 | 898,895 | 132,878,546 | \$36,881,948.15 | \$63,462,627.77 |
| Aitkin | 4 | 3 | 0 | 1,120 | 4,568 | 762,229 | \$293,082.11 | \$331,983.38 |
| Anoka | 2 | 2 | 0 | 154 | 1,133 | 175,792 | 175,792 | \$1,020.40 |
| Becker | 10 | 2 | 0 | 1,146 | 7,996 | 773,311 | 308,866.50 | \$71,269.00 |
| Beltrami | 3 | 0 | 1 | 172 | 1,075 | 101,119 | 40,866.94 | 47,322.58 |
| Benton | 5 | 4 | 0 | 1,130 | 5,999 | 1,124,465 | 438,959.60 | 509,188.97 |
| Big Stone | 1 | 3 | 0 | | | | | |
| *Blue Earth | 16 | 2 | 0 | 2,279 | 17,754 | 2,827,237 | 1,290,897.29 | 1,397,876.13 |
| Brown | 11 | 1 | 0 | 1,186 | 10,050 | 1,283,547 | 570,459.04 | 623,685.52 |
| Carlton | 2 | 2 | 0 | 804 | 3,733 | 690,307 | 324,831.05 | 377,618.38 |
| *Carver | 12 | 5 | 0 | 1,723 | 17,575 | 3,181,121 | 1,183,677.44 | 1,659,660.80 |
| Cass | 4 | 2 | 0 | 448 | 2,289 | 243,086 | 92,627.12 | 106,658.06 |
| Chippewa | 3 | 1 | 0 | 526 | 2,944 | 397,221 | 169,677.62 | 192,884.44 |
| Clay | 11 | 2 | 0 | 1,806 | 1,544 | 1,940,407 | 853,412.26 | 900,287.68 |
| Clearwater | 3 | 3 | 0 | 634 | 4,504 | 425,004 | 172,770.72 | 192,255.02 |
| Cottonwood | 6 | 1 | 0 | 509 | 4,086 | 320,326 | 136,912.26 | 147,991.01 |
| Cotton Wing | 4 | 3 | 0 | 605 | 3,846 | 540,659 | 213,765.82 | 244,203.57 |
| Dakota | 3 | 2 | 0 | 291 | 1,900 | 160,485 | 64,859.60 | 72,539.80 |
| Dodge | 4 | 6 | 0 | 650 | 4,930 | 681,901 | 239,449.81 | 292,449.81 |
| Douglas | 6 | 2 | 0 | 795 | 8,430 | 1,125,665 | 500,827.28 | 552,602.70 |
| *Faribault | 12 | 2 | 1 | 2,077 | 15,989 | 2,701,448 | 1,142,757.87 | 1,286,781.58 |
| *Fillmore | 19 | 0 | 0 | 1,814 | 14,702 | 2,302,397 | 979,229.99 | 1,058,453.69 |
| *Freeborn | 26 | 0 | 0 | 1,630 | 13,800 | 2,350,201 | 1,046,320.82 | 1,146,320.82 |
| *Goodhue | 9 | 2 | 2 | 2,175 | 18,261 | 2,569,426 | 1,182,155.29 | 1,223,011.48 |
| Grant | 4 | 2 | 0 | 1,017 | 6,800 | 736,161 | 306,170.99 | 326,113.32 |
| *Hennepin | 1 | 0 | 0 | 52,257 | 8,916,287 | 8,916,287 | 3,112,724.82 | 3,112,724.82 |
| Houston | 9 | 2 | 0 | 1,447 | 10,696 | 1,454,419 | 626,286.81 | 694,745.51 |
| Hubbard | 1 | 1 | 0 | 148 | 1,127 | 107,017 | 43,887.85 | 48,631.70 |
| Isanti | 8 | 2 | 0 | 1,445 | 9,470 | 1,098,111 | 490,246.42 | 547,738.97 |
| Jackson | 3 | 1 | 0 | 190 | 1,123 | 112,535 | 45,606.33 | 50,606.33 |
| Jackson | 10 | 0 | 0 | 795 | 7,221 | 927,738 | 395,990.86 | 438,737.11 |
| Kanabec | 3 | 1 | 0 | 445 | 3,380 | 496,850 | 233,207.21 | 257,176.37 |
| Kandiyohi | 9 | 4 | 1 | 1,126 | 2,980 | 1,107,734 | 439,206.55 | 529,870.64 |
| Kanabec | 6 | 4 | 0 | 1,064 | 6,451 | 529,716 | 200,451.15 | 234,926.61 |
| Koochiching | 1 | 0 | 0 | 150 | 1,500 | 15,000 | 6,250.00 | 6,250.00 |
| La Qui Parle | 2 | 1 | 0 | 120 | 745 | 77,083 | 29,969.11 | 37,257.54 |
| Le Sueur | 7 | 0 | 0 | 1,156 | 9,122 | 1,442,379 | 557,763.67 | 620,464.82 |
| Lincoln | 5 | 0 | 0 | 1,089 | 9,917 | 1,020,393 | 444,250.42 | 47,908.81 |
| Lyon | 9 | 0 | 2 | 1,108 | 11,908 | 1,953,231 | 735,090.96 | 812,700.96 |
| *McLeod | 14 | 2 | 0 | 2,387 | 19,705 | 3,521,653 | 1,677,104.02 | 1,812,357.59 |
| Malhomen | 2 | 0 | 0 | 280 | 2,184 | 171,525 | 68,184.20 | 77,475.92 |
| Marshall | 9 | 3 | 0 | 1,111 | 7,855 | 660,634 | 268,051.98 | 300,333.72 |
| *Martin | 7 | 3 | 1 | 1,863 | 18,143 | 2,732,270 | 1,198,927.84 | 1,298,590.90 |
| *Meeker | 18 | 2 | 0 | 1,891 | 17,634 | 2,534,174 | 1,051,911.00 | 1,245,886.34 |
| *Mille Lacs | 8 | 1 | 0 | 1,872 | 12,750 | 2,123,131 | 947,084.41 | 1,005,133.52 |
| *Morrison | 15 | 3 | 0 | 2,549 | 20,391 | 3,123,127 | 855,167.21 | 1,008,585.50 |
| *Mower | 8 | 1 | 0 | 1,863 | 13,249 | 1,863,838 | 811,120.38 | 1,236,907.97 |
| Murray | 11 | 0 | 0 | 589 | 3,884 | 484,035 | 193,021.51 | 222,089.42 |
| Nicollet | 5 | 0 | 0 | 965 | 8,855 | 1,276,871 | 569,731.55 | 614,837.69 |
| Nobles | 2 | 2 | 0 | 681 | 5,068 | 860,785 | 328,845.31 | 397,249.19 |
| Norman | 11 | 0 | 0 | 1,076 | 7,539 | 887,282 | 217,578.19 | 275,631.14 |
| *Olmsted | 7 | 2 | 1 | 1,576 | 12,498 | 2,205,307 | 1,006,648.79 | 1,117,022.32 |
| *Otter Tail | 26 | 2 | 0 | 3,980 | 28,477 | 3,363,258 | 1,452,798.56 | 1,591,570.12 |
| Pennington | 5 | 0 | 0 | 860 | 6,700 | 771,660 | 328,196.02 | 374,078.59 |
| Pipestone | 4 | 0 | 0 | 1,054 | 10,954 | 1,508,402 | 631,753.07 | 725,717.16 |
| *Pipestone | 7 | 2 | 1 | 1,920 | 14,813 | 2,271,773 | 1,044,095.63 | 1,049,174.39 |
| Polk | 13 | 0 | 1 | 1,704 | 12,772 | 1,562,258 | 634,054.73 | 707,797.41 |
| Pope | 6 | 5 | 0 | 1,093 | 7,166 | 827,769 | 339,435.25 | 382,529.38 |
| 2 Ramsey | 2 | 0 | 0 | 9,389 | 75,313 | 1,256,192 | 496,987.10 | 549,671.10 |
| Red Lake | 4 | 1 | 0 | 530 | 3,607 | 382,667 | 165,880.70 | 179,487.66 |
| Redwood | 4 | 4 | 0 | 829 | 5,765 | 729,282 | 322,741.33 | 362,760.09 |
| Renville | 8 | 5 | 0 | 1,791 | 11,858 | 1,353,156 | 579,524.77 | 653,745.79 |
| Rice | 3 | 3 | 0 | 1,350 | 11,056 | 1,874,858 | 811,120.38 | 947,637.69 |
| Rock | 1 | 0 | 0 | 620 | 4,600 | 319,885 | 133,936.95 | 146,685.19 |
| Roseau | 5 | 1 | 0 | 655 | 3,539 | 412,587 | 168,446.07 | 189,313.64 |
| St. Louis | 3 | 4 | 2 | 3,064 | 24,922 | 3,917,820 | 1,495,806.55 | 1,768,258.55 |
| Stearns | 5 | 0 | 0 | 1,001 | 7,472 | 1,156,391 | 555,567.31 | 555,567.31 |
| Sherburne | 3 | 3 | 0 | 289 | 2,880 | 277,084 | 105,164.49 | 131,249.19 |
| Sibley | 9 | 2 | 1 | 1,549 | 12,032 | 1,929,292 | 806,013.13 | 930,132.19 |
| *Stearns | 22 | 5 | 2 | 4,525 | 39,528 | 5,937,348 | 2,527,034.77 | 2,864,871.65 |
| Steele | 23 | 1 | 0 | 2,262 | 20,660 | 3,613,573 | 1,637,905.60 | 1,827,961.34 |
| Stevens | 2 | 1 | 0 | 340 | 2,700 | 300,824 | 77,928.57 | 90,875.57 |
| Swift | 5 | 1 | 1 | 939 | 6,453 | 1,325,095 | 566,632.06 | 663,286.93 |
| Todd | 14 | 0 | 0 | 1,256 | 17,504 | 2,612,635 | 1,161,235.47 | 1,273,462.68 |
| Traverse | 1 | 0 | 0 | | | | | |
| Wabasha | 10 | 2 | 0 | 1,047 | 7,402 | 1,461,458 | 644,622.77 | 710,808.94 |
| Wadena | 7 | 2 | 0 | 1,968 | 13,830 | 1,173,745 | 499,771.26 | 547,967.03 |
| Waseca | 14 | 0 | 0 | 1,529 | 12,730 | 1,939,237 | 871,021.42 | 953,294.50 |
| Washington | 4 | 2 | 0 | 662 | 3,942 | 723,572 | 326,494.56 | 381,525.55 |
| Watson | 7 | 1 | 0 | 878 | 7,285 | 1,002,283 | 434,578.58 | 477,658.58 |
| Wilkin | 0 | 1 | 0 | 150 | 1,500 | 197,584 | 79,373.63 | 86,936.96 |
| *Winona | 16 | 4 | 0 | 1,444 | 13,581 | 2,253,620 | 1,012,311.82 | 1,084,712.28 |
| *Wright | 17 | 7 | 0 | 2,815 | 22,186 | 3,675,846 | 1,567,345.26 | 1,788,945.26 |
| Wright Medicine | 2 | 2 | 1 | 1,083 | 6,478 | 660,139 | 268,215.75 | 319,498.94 |

1 Ramsey County includes St. Paul.

2 Hennepin County includes Minneapolis.

3 St. Louis County includes Duluth.

* Twenty-one other counties that each produce more than a Million Dollars' worth of butter.

By-Products that Enrich the Dairyman

How they Helped Him "Carry On" During the World War

Three valuable by-products give to the creamery patrons a third profit and another advantage over other dairymen—natural fertilizer, skimmilk and young calves.

The first is available on all livestock farms and is spread on the soil to renew fertility. Skimmilk, however, can be had only where cream is separated to make butter. It is the natural and most valuable feed for calves, pigs and chickens. Fed to them with grain it is used to build up the dairy herd; or marketed as pork, beef or poultry. This yields much greater profits than if the whole milk is sold to a cheese factory, condensary, or to market.

So creamery patrons usually make a nice additional profit out of hogs and they also build up their herds by saving the best heifer calves, which whole milk producers are obliged to slaughter at birth. The cost of raising them without skimmilk eats up their profit, when feed prices are as high as at present.

This is a great advantage to Minnesota dairymen over Wisconsin patrons of cheese factories and condensaries, which buy whole milk. While they also may be fed, its value is only about one half that of skimmilk and it must be hauled back from the cheese factory at additional cost. Cream for

butter-making, however, is usually separated on the farm and the skimmilk never leaves it.

Only 12 of Minnesota's 841 creameries take whole milk, 619 take separated cream alone, only 210 take both. Between 75,000 to 80,000 hand separators are estimated to be in use, making plenty of skimmilk available.

Experiments in Wisconsin show that, fed with grain, skimmilk is worth about one half as much as corn, or \$1.00 to \$1.25 per hundred pounds at 1919 prices. If sold as whole milk it brings very much less, or about one half this price, so thrifty farmers feed it at home. Prof. T. L. Haecker, founder of the co-operative creameries and of the Minnesota State Dairy School, adopted a policy of encouraging butter making instead cheese, because of the state's early need for building up its young herds on skimmilk.

Its real value was strikingly shown during the war. Market milk states had to sacrifice their herds heavily, because the feed shortage made calf raising prohibitive. This is one reason why dairy progress has halted in New York, New Jersey, Pennsylvania and parts of Iowa and Illinois. The butter and cheese making districts, however, all had an abundance of skimmilk or whey, so they increased their herds rapidly, as shown by Tables No. 7 and 8.

TABLE NO. 7

Increases of Hogs and Cattle, 1910-1919 in Important Dairy States

Estimates Furnished by U. S. Department of Agriculture

| | Hogs | | Cattle (Other than Dairy Cows) | |
|---------------------|--------------------|------------------------|--------------------------------|------------------------|
| | Gain Since 1910 | Total, 1919 | Gain Since 1910 | Total, 1919 |
| *MINNESOTA | 1,263,743 | 2,784,000 | 369,953 | 1,632,000 |
| *WISCONSIN | 371,669 | 2,181,000 | 229,431 | 1,436,000 |
| *NORTH DAKOTA | 124,397 | 456,000 | 127,411 | 612,000 |
| *SOUTH DAKOTA | 644,279 | 1,654,000 | 330,488 | 1,496,000 |
| *MONTANA | 100,739 | 200,000 | 154,380 | 1,020,000 |
| *IOWA | 3,379,147 | 10,925,000 | (Loss 180,214) | 2,861,000 |
| New York | 147,821 | 814,000 | (Loss 2,409) | 911,000 |
| Illinois | 1,037,638 | 5,724,000 | (Loss 23,354) | 1,367,000 |
| Texas | (Loss 16,363) | 2,320,000 | (Loss 1,959,719) | 3,961,000 |
| Ohio | 1,160,373 | 4,266,000 | 109,418 | 1,102,000 |
| Pennsylvania | 442,363 | 1,420,000 | 78,121 | 731,000 |
| Kansas | (Loss 619,157) | 2,381,000 | 57,704 | 2,401,000 |
| Missouri | 504,806 | 4,943,000 | 76,948 | 1,782,000 |
| Indiana | 1,054,094 | 4,668,000 | 50,575 | 780,000 |
| Nebraska | 814,276 | 4,250,000 | 621,602 | 2,940,000 |
| Michigan | 109,167 | 1,355,000 | (Loss 1,740) | 729,000 |
| U. S. Gain | 17,401,324 | U. S. Total 75,587,000 | U. S. Gain 3,220,566 | U. S. Total 44,399,000 |

* FARM, STOCK & HOME States.

The Gains and Losses of Dairy Cows, 1910-1919 and 1917-1918, are shown on pages 2 and 3.

War-Times' Testing of the Co-operative System

*Large gains of all Live Stock in 1917 and 1918
by the Farm, Stock & Home Group*

The acid test was applied to this dairy region during the war. Minnesota and the Dakotas rolled up the greatest spring wheat crop in the Nation's history, and at the same time increased their live-stock rapidly.

All butter making districts, with their abundance of cheap skim milk, increased their Dairy Herds, Other Cattle and Hogs during 1917 and 1918.

Gains of Dairy Cows

MINNESOTA gained 66,000 dairy cows, or more than any other state except Ohio (80,000). This was more than the gain in Wisconsin (53,000), where cheese and condensed milk predominate, taking whole milk and leaving no skim milk. South Dakota and Montana each gained 37,000, North Dakota 4,000. Other important dairy states like New York, Iowa, Texas, Pennsylvania, Michigan and Nebraska lost heavily, as shown by Table No. 2 on page 3—"Gains and Losses of Cows, 1917-1918."

Gains of Other Cattle

MINNESOTA gained 232,000 other cattle, or more than twice as many as Wisconsin, Iowa, Illinois, Pennsylvania or New York, and more than Ohio, Kansas, Missouri, Indiana, or any other state except Nebraska or South Dakota. SOUTH DAKOTA gained 246,000. See Table No. 8, below.

Gains of Swine

MINNESOTA also gained 709,000 hogs, or more than five times as many as Wisconsin, and about half as many as the greatest hog state, Iowa. No other state except Ohio and Illinois gained as many hogs as Minnesota. SOUTH DAKOTA gained 222,000. See Table No. 8 below.

The great advantage that co-operative butter-making districts, with their skim milk by-product, have over other dairy districts could not be better proven than by these tables:

TABLE NO. 8

Gains and Losses, Hogs and Cattle, 1917 and 1918, in Important Dairy States

Estimates Furnished by the U. S. Department of Agriculture

| | Hogs Gained | Hogs Lost | Cattle (other than Dairy Cows) Gained | Cattle Lost |
|---------------------|----------------|--------------|--|----------------|
| *MINNESOTA | 709,000 | ..... | 232,000 | ..... |
| *WISCONSIN | 121,000 | ..... | 96,000 | ..... |
| *NORTH DAKOTA ..... | ..... | 194,000 | ..... | 38,000 |
| *SOUTH DAKOTA | 222,000 | ..... | 246,000 | ..... |
| *MONTANA ..... | ..... | 69,000 | 20,000 | ..... |
| *IOWA | 1,555,000 | ..... | 107,000 | ..... |
| New York | 55,000 | ..... | ..... | 28,000 |
| Illinois | 1,280,000 | ..... | 116,000 | ..... |
| Texas ..... | ..... | 909,000 | ..... | 1,521,000 |
| Ohio | 739,000 | ..... | 202,000 | ..... |
| Pennsylvania | 246,000 | ..... | 67,000 | ..... |
| Kansas ..... | ..... | 154,000 | 201,000 | ..... |
| Missouri | 663,000 | ..... | 132,000 | ..... |
| Indiana | 698,000 | ..... | 45,000 | ..... |
| Nebraska | 50,000 | ..... | 415,000 | ..... |
| Michigan | 10,000 | ..... | ..... | 1,000 |
| U. S. Gain | 8,084,000 | ..... | U. S. Gain 2,710,000 | ..... |

* FARM, STOCK & HOME States.

The Gains and Losses of Dairy Cows, 1917-1918, are shown on page 3.

The Gains of Dairy Cows, 1910-1919, are shown on page 3.

Co-operation in the Farm, Stock & Home Group Leads the United States

Besides its lead as to creameries, Minnesota has a larger total of farmers' co-operative enterprises (2,950) than any other state. Iowa was second, Wisconsin third, North Dakota fourth, and the United States had about 12,300 in 1914-1915, according to a survey by the U. S. Office of Markets and Rural Organizations (Bulletin 547).

In the 23 states reporting were 1,637 farmers' grain elevators and warehouses doing a total annual business of \$234,529,716.00. North Dakota reported 264, Minnesota, 241, Iowa 228, South Dakota 135. The United States had 5,500 creameries and 3,500 cheese factories.

Federal Farm Loan Associations

The FARM, STOCK & HOME group is among the leading states as to co-operative loan associations, as shown by the following table furnished by the Federal Farm Loan Bank of St. Paul, May 1, 1919:

| | Associations | Loans Completed | Total Amount Loaned |
|------------------|--------------|-----------------|---------------------|
| Minnesota | 117 | 2,689 | \$7,548,600 |
| North Dakota ... | 164 | 4,764 | 14,086,800 |
| South Dakota ... | 77 | 1,448 | 5,495,950 |
| Montana | 31 | 3,673 | 8,927,940 |
| Wisconsin | 71 | 1,459 | 2,983,500 |

This money was loaned for the following purposes: Buy land 8%, buildings and improvements 10%, implements and equipment 3%, buy bank stock 5%, buy live-stock 4%, pay mortgages 60%, other debts 10%.

TABLE NO. 9
SUMMARY OF FARMERS' CO-OPERATIVE MOVEMENT IN MINNESOTA

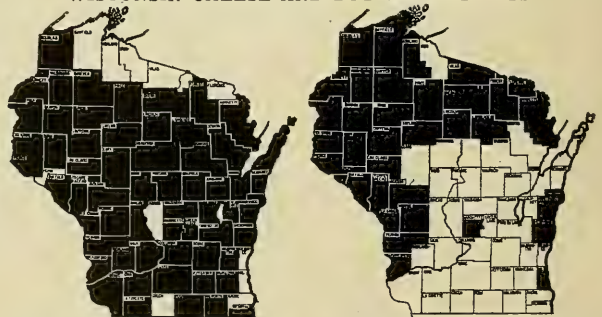
| | 1917 | 1913 | Value of Business 1917 | 1913 |
|---------------------------------------|-------|-------|---------------------------|--------------|
| Creameries | 643 | 613 | \$31,012,000 | \$21,675,252 |
| Elevators (1917 crop) | 360 | 270 | 45,000,000 | 24,000,000 |
| Livestock Shipping Associations | 400 | 115 | 33,000,000 | 6,000,000 |
| Cheese Factories | 52 | 34 | 986,000 | 637,224 |
| Stores | 102 | 115 | 6,500,000 | 4,250,000 |
| Potato Warehouses | 15 | 20 | 300,000 | 100,000 |
| Fire Insurance Companies (1916) | 159 | 154 | 712,606 | 696,732 |
| *Telephone Companies | 950 | 600 | 1,200,000 | 900,000 |
| **Miscellaneous | 275 | 86 | | |
| Total | 2,950 | 2,000 | \$118,710,000 | \$58,260,000 |

*Total in state, 1,400, including stock companies.

**Includes 100 buying clubs, 75 horse breeding associations, 28 breeding associations, 25 county breeders' associations, 28 co-operative bull associations, 15 cow testing associations, 7 farmers' lumber yards, 12 miscellaneous. From Minnesota State Bulletin No. 184, "Farmers' Co-operation in Minnesota, 1913-1917," by Prof. Black and Frank Robotka, June, 1919

MAP NO. 6

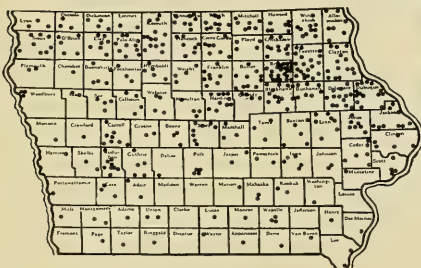
WISCONSIN CHEESE AND BUTTER DISTRICTS



Increase in Cheese Production 1909-1917 Counties Showing an Increase in Butter Production 1909-1917

MAP NO. 5

LOCATION OF IOWA'S CREAMERIES



From Dairy Commissioner's Report

Iowa's 451 creameries are largely in the northern counties in which FARM, STOCK & HOME circulates. Co-operative creameries number 251. Production estimates are shown on page 17.

From Dairy Commissioner's Bulletin

Wisconsin butter production has increased largely in western counties, where FARM, STOCK & HOME circulates. The state as a whole gained 665 cheese factories, 1909-1917, and lost 147 creameries.

Co-operation in the Other Farm, Stock and Home States

FARM, STOCK & HOME'S circulation covers exactly the dairy districts of Minnesota, northern Iowa, western Wisconsin, the Dakotas, and Montana, where the Double-Profit System of creamery butter making is most highly developed. In Minnesota it reaches more than half the farms.

For several years it has had the largest total circulation in this group. There is a reason. It is the dairyman's favorite paper, because it is "The Paper that Founded the Farmers' Creameries." It is directly responsible for the development of this system in the Northwest. The story of its work and of the paper's editors, who had a large part in the building-up of this great Dairy industry, is told on pages 30 and 31.

Detailed statements as to circulation distribution will be sent free on request.

Wisconsin

WISCONSIN, first dairy state, is also the leading cheese producing state. Its 1918 production of \$76,248,547.00 was an increase of more than 90% over 1909. It has 2,593 cheese factories as compared with 1,928 in 1910. It gained 227 from 1916 to 1918. Many of these are co-operative, distributing their profits to patrons. They have crowded the butter factories into the western counties, where FARM, STOCK & HOME circulates, near to the Twin City and Duluth markets in Minnesota, as shown by Map No. 6 on the opposite page.

The state had 1,005 creameries in 1910 and 858 in 1918. Creameries decreased 65 from 1916 to 1918. Many of them produce both cheese and butter, and about one-half are co-operative.

The creameries produced 101,325,285 pounds of butter in 1917, or 3.8% less than in 1910, but it sold for about ten million dollars more (\$39,583,037.00). The 1918 estimate is \$49,649,391.00.

In the western counties, however, increases of creameries and butter production were made. See Map No. 6. Conditions here are about the same as in Minnesota. Dairy men realize the feeding value of the skimmilk by-product of butter-making, already shown on page 12, to be higher than when sold as whole milk.

Wisconsin's 53 condensaries are also largely in eastern counties. They bought 747,540,078 pounds of milk, worth \$22,815,693.75 in 1918, an increase of more than 260% over 1910. Most of them are not co-operative, however. Condensed milk and cheese production were both greatly stimulated by the war, as these products are more easily stored and transported than butter, which is more perishable.

Iowa

Iowa's 451 creameries are shown by Map No. 5 to be largely within FARM, STOCK & HOME'S territory in the northern counties. Co-operative factories number 251. The state's total dairy production is shown on page 17.

North Dakota, South Dakota and Montana

Farmers in these three states are turning rapidly from wheat raising to dairying, just as in the earlier days in Wisconsin, Minnesota and Iowa. Creameries are multiplying, as dairy cows increase. The

centralizers still afford a good market. FARM, STOCK & HOME is assisting this development with constant educational service as to dairying, co-operation and marketing.

North Dakota

J. J. Osterhaus, Dairy Commissioner, says: "In 1918 several creameries indicated an interest in improved marketing methods. The North Dakota Federated Creameries' Association has been formed, thirteen creameries joined together to purchase supplies co-operatively and standardize the quality of their product. This department acts as business manager, inspecting grades and weights, and locating the best markets for carload lots. Butter shipments formerly varied in appearance, color, package, composition and flavor. Remarkable improvement has been noted. Several creameries are receiving one-half to one and a half cents net per pound more than before. A similar organization will be effected in eastern North Dakota."

South Dakota

A. P. Ryger, State Dairy Expert, says: "The war has had no detrimental effect on the dairy industry in the state. It is hoped our farmers will consider dairying's importance as an economic necessity and not dispose of cows because of high prices of feed and labor. The 1917 dairy production is about 5% less than 1916, but higher prices gave an increase in value of about six million dollars. Prices are increasing as people come to realize that there are no foods cheaper than milk, cream, butter, cheese and ice cream."

Montana

Wm. H. Feluhr, Dairy Commissioner, says: "Montana is being noticed for its rapid growth in dairying. We have made a very creditable showing the past four years and will make a wonderful showing the next four. We have much activity now in silo building and crops being raised for silage. With the coming of homesteaders to Montana we have had a great increase in dairying, as evidenced by the increase in our factories. Four years ago we had 20 creameries and no cheese factories. Today we have 62 creameries and thirteen cheese factories. They have had good prices and a good season."

The Double-Profit System of Dairying



MORGAN CO-OPERATIVE CREAMERY, MORGAN, MINNESOTA
One of the Farmers' Double-Profit Makers.



HOME OF W. F. SCHILLING, D.
Spring Brook Farm, One Mile South of Northfield, Minn. One of the Farms

MORE THAN HALF A BILLION DOLLARS

COMPARISON OF THE 1918 PRODUCTION IN THE FOUR GREATEST DAIRY STATES

Minnesota Leads the U. S. in Creamery Butter, Wisconsin in Cheese

| | Minnesota | Wisconsin |
|--|---------------|---------------|
| Total Dairy Production..... | \$133,792,951 | \$221,659,813 |
| Total Creamery Butter..... | 63,467,653 | 49,649,391 |
| Creamery By-Products..... | 50,000 | 3,564,550 |
| Farm Butter..... | 2,474,105 | 3,896,715 |
| Farm Cheese..... | 21,200 | 231,347 |
| Factory Cheese..... | 1,640,054 | 76,248,547 |
| Cheese Factory By-Products..... | * * * | 271,112 |
| Market Milk and Cream..... | 23,981,914 | 36,181,996 |
| Ice Cream..... | 2,083,476 | 1,534,572 |
| Condensed and Powdered Milk..... | 312,000 | 22,815,694 |
| Skimmilk, Whey, Buttermilk, Etc..... | 39,762,549 | 27,265,889 |
| Other Dairy Products..... | * * * | * * * |
| Total Farms (United States Estimate, 1919)..... | 157,000 | 182,000 |
| Total Dairy Cows (United States Estimate, 1919)..... | 1,368,000 | 1,803,000 |
| Total Creameries..... | 841 | 859 |
| Total Co-operative Creameries..... | 643 | 430 |
| Cheese Factories..... | 85 | 2,593 |
| Cream Stations..... | * * * | * * * |
| Ice Cream Factories..... | 95 | * * * |
| Condensaries..... | 3 | 53 |
| Powdered Milk Factories..... | 3 | * * * |
| Silos (1916 Estimate)..... | 16,000 | 55,992 |
| Cream Separators..... | 80,000 | * * * |
| Cow-Testing Associations, 1918..... | 26 | 82 |

COMPILED FROM DATA FURNISHED BY STATISTICAL BUREAU

JAMES SORENSON, Dairy and Food Commissioner, Minnesota.

GEORGE J. WEIGLE, Dairy and Food Commissioner, Wisconsin.

J. J. OSTERHAUS, Dairy Commissioner, North Dakota.

A. P. RYGER, South Dakota.

FARM, STOCK and HOME is the Paper That Founded the Farmers' Creameries

Page Sixteen



DITOR, FARM, STOCK AND HOME
ards That Have Made Northfield a Famous Center for Holstein-Friesian Cattle.



GLENCOE CO-OPERATIVE CREAMERY, GLENCOE, MINNESOTA
Another Distributor of Wealth to Dairymen.

ARS' WORTH OF DAIRY PRODUCTS

DAIRY STATES, AND THE THREE FASTEST GROWING DAIRY STATES.

owa in Farm Dairy Butter, N. Y. in Condensed and Market Milk.

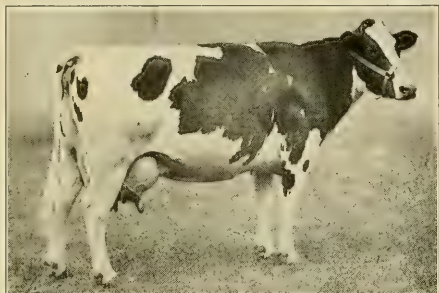
| Iowa | New York | North Dakota | South Dakota | Montana |
|---------------|---------------|--------------|--------------|--------------|
| \$119,248,831 | \$208,084,590 | \$25,182,774 | \$24,745,600 | \$12,222,000 |
| 38,806,989 | 7,005,564 | 9,513,635 | 12,102,000 | 2,500,000 |
| * * * | * * * | * * * | * * * | * * * |
| 30,978,552 | * * * | 2,319,569 | 2,684,000 | 750,000 |
| * * * | * * * | 43,504 | * * * | * * * |
| 118,980 | 14,800,996 | * * * | * * * | 375,000 |
| * * * | 218,723 | * * * | * * * | * * * |
| 31,410,000 | 98,338,854 | 10,828,233 | 4,720,000 | 8,212,000 |
| 5,513,997 | 33,336,441 | * * * | 1,050,000 | 385,000 |
| 420,313 | 53,168,023 | * * * | * * * | * * * |
| 12,000,000 | 259,059 | 2,477,833 | 4,189,600 | * * * |
| * * * | 956,930 | * * * | * * * | * * * |
| 215,000 | 215,000 | 95,000 | 95,000 | 36,000 |
| 1,381,000 | 1,478,000 | 429,000 | 561,000 | 197,000 |
| 451 | 213 | 48 | 78 | 62 |
| 251 | * * * | 13 | 38 | * * * |
| 24 | 766 | 2 | 1 | 13 |
| * * * | * * * | 143 | * * * | * * * |
| 493 | 115 | * * * | 55 | 65 |
| 3 | 59 | * * * | * * * | * * * |
| * * * | 8 | * * * | * * * | * * * |
| 23,000 | 42,846 | 2,000 | 3,000 | 150 |
| 107,853 | * * * | * * * | * * * | * * * |
| 30 | 43 | * * * | * * * | * * * |

DAIRY AND FOOD DEPARTMENTS AS FOLLOWS:

NEY, Dairy and Food Commissioner and PROF. M. MORTENSEN, Iowa State College, Iowa.
ry Expert, South Dakota.

W. H. FELUHR, Dairy Commissioner, Montana.

GEO. E. HOGUE, Director of Dairy Bureau, New York.



DUCHESS SKYLARK ORMSBY

World's greatest dairy cow. Champion of all breeds; a Holstein cow of Minnesota; 558.10 lbs. milk; 34.36 lbs. butterfat, 7 days; 27,761.50 lbs. milk; 1,506.36 lbs. butterfat, 365 days.

Her owner writes to FARM, STOCK & HOME:

"We are very much impressed these days with the need of intelligent use of dairy products, with reference to their food value as compared with other sources of food. The practical phase of this with the farmer is to develop his resources, especially his dairy cattle, to their greatest production, and see to it that those cows are developed which will give a profitable return for feed consumed. We appreciate the interest your paper has taken to these ends and we believe that the good work you are doing will be of permanent value in educating and directing the work along dairy lines."

Sincerely yours,

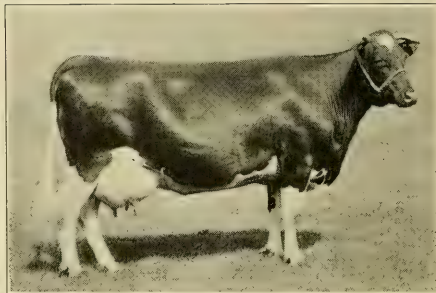
JOHN B. IRWIN.

Pure Bred Live Stock in the Northwest

A beautiful little bull calf, six months old, a Holstein aristocrat, sold at auction for \$106,000.00 in Wisconsin in 1918. His half brother, two years old, sold in May, 1919, for \$125,000.00.

These events, and the record above of the greatest dairy cow in world's history, are examples of the character of pure-bred dairy cattle in the FARM, STOCK & HOME group. This wonderful animal was a Minnesota cow, of Minnesota parentage and ancestry.

At Schroeder Farms, Moorhead, Minn., right on the Dakota line, an auction sale of 75 pure-bred cattle was held by the Minnesota Holstein Breeders' Association, June 12, 1919. The average price received was \$2,895, which leads any other state sale anywhere by \$450. One Minnesota bred cow, Jenny Wren Pietertje, shown herewith, was sold for \$10,100 to a Waukesha county, Wisconsin firm, which also paid \$10,000 for another cow. Still another Minnesota cow also brought \$10,000. A Wisconsin and Minnesota partnership paid \$65,000 for Sir Pietertje Ormsby Mercedes 41st, a Minnesota bull of such conformation, blood lines and performance as is rarely surpassed in this country. This is the highest price ever received in the state, and



JENNY WREN PIETERTJE

A Minnesota bred Holstein cow that sold for \$10,100 at auction to a Wisconsin firm at the Moorhead, Minn., sale, June 12, 1919.

it is said there have been but two higher in this country. Even Wisconsin, therefore, is coming to Minnesota and paying these enormous prices for choice pure-bred breeding stock.

As a pure-bred cattle region the FARM, STOCK & HOME group is already in the front rank. It produces some of the finest breeding stock in the world. It is impossible to estimate its total value.

One can easily see how much greater is the value of Duchess Skylark Ormsby, producing 27,761.5 pounds of milk, compared with the average cow of the United States producing about 4,000 pounds, or of Minnesota, 4,275 pounds a year.

Compare her value also with that of the 1,000 pound steer cited in Armour & Company's publicity, which sold in Chicago for \$160, yielding only 565 pounds of dressed beef, worth \$141.25, after removing hide, hoofs and inedible parts. He had to be fed two years and then slaughtered before the farmer cashed in. This cow, however, produced 1,506.36 pounds of pure butterfat in one year and will leave the impress of her ability on all her progeny.

Another Minnesota cow, Jean Duluth Beauty, shown herewith, is world champion Red Polled cow, yearly record 20,280.6 pounds of milk, 891.56 pounds of butterfat. Read her owner's letter to FARM, STOCK & HOME on the opposite page.

Even with hundreds of breeders raising breeding stock, the demand in the Northwest has exceeded the supply for years. The industry is growing so fast that nobody seems able to keep up with an estimate of its progress.

For years FARM, STOCK & HOME preached the gospel of better livestock. Today the Northwestern dairyman has before him so many examples of good breeding that he does not need to be told of its value. He buys it about as fast as he can raise the money to invest. All the dairy breeds are represented—Holstein, Guernsey, Jersey, Ayrshire, Red Polled, Brown Swiss, Dutch Belted, and Milking Shorthorn.



SIR PIETERTJE ORMSBY MERCEDES 418T

A Minnesota bred Holstein bull that sold for \$65,000 at auction to a Wisconsin and Minnesota partnership at the Moorhead, Minn., sale, June 12, 1919.



JEAN DULUTH BEAUTY

World's champion Red Polled cow. A Minnesota cow; yearly record: 20,280.6 lbs. milk, 891.56 lbs. butterfat. Owned by Jean DuLuth Farm, Nickerson, Minn., George P. Grout, managing owner.

The Northwest Leads in Cow Testing Associations

The cow testing associations are demonstrating the value of pure-bred stock and FARM, STOCK & HOME is bending every effort to assist this movement by giving wide distribution to the results of their work in its territory.

The Northwest is already in the front rank as to these associations. In 1918 the United States had 353, with 9,778 members milking 168,348 cows. Wisconsin lead the country with 82, Iowa had 30 and Minnesota 26. They originated in Denmark in 1895 and in this country in 1906.

According to Prof. W. A. McKerrow, leader of the government's dairy extension work in Minnesota, records in Denmark show that they increased the average butterfat production in twenty years from 120 to 200 pounds, and are one of the industry's best assets. They establish business efficiency by giving an accurate record of each cow's performance at the pail.

One good effect is the weeding out of unprofitable "boarder" cows. The testers found on many farms that 20 per cent of the cows produced less than the value of their feed, and some other cows that made up the loss. These facts could be found out only by testing each cow.

Another result is better feeding methods. Minnesota records show increases in value of product of \$8, with increased feeding costs of only \$2. They also show that a fairly good cow will make a profit with certain feeding combinations which can be proven to be profitable only by testing, but not in the old haphazard way. They also prove the profits gained by good management, convenient, well-equipped and comfortable barns, good ventilation, heat and light.

The tester is well worth while if only to test separators. In Minnesota over 60 per cent were

Her owner writes thus: "Farm, Stock & Home has been a welcome visitor in our home since my early boyhood, but at no time has it been more eagerly sought than now. We have followed with intense interest the stand your splendid paper has taken in the 'Preparedness Program' and have noted the valuable counsel and efficient assistance you have given the farmers of the Northwest at this time of our Nation's great need. Because of the practical nature of the articles published each issue for years, you have secured the ear of the farmer, which has enabled you to do a world of good. You will continue to exert a wonderful influence so long as you maintain the high standard you have set in your articles. The fact that such a worthy magazine as the Literary Digest makes frequent favorable mention of your reading matter, should bespeak its worth in no uncertain terms. As a farm paper we would not know what to do without F. S. & H. —Yours very truly, Geo. P. Grout, Managing Owner of Jean DuLuth Farm."

found to be doing a poor job through fault of the operator—too slow turning, lack of cleanliness, wobbly bowls, needed repairs or replacements. All the standard makes were found to be making good, if properly handled.

Minnesota Has Healthiest Herds

Prof. McKerrow also states that buyers all over the country are coming to Minnesota for breeding stock because less tuberculosis exists among its cattle than in any other intensive dairy state.

The Minnesota Livestock Board has always taken the greatest precautions against it. When the government established a system of federal accredited herds, Minnesota was the first state to take up the work. It leads all others on the accredited "tuberculosis-free" list. In 1898, out of 27,216 cattle tested, 9.4% reacted. In 1918, only 2.4% of those tested reacted. In the following six months the percentage was less. Suspected cattle killed at the South St. Paul market showed only 1.9% infection. Other markets showed 3.8%.

The Present and Future Demand

There are two reasons why the future never looked brighter for these dairy states that have entrenched themselves behind the Double-Profit System. High prices for dairy products will continue for years to come because the world demand is tremendous. They are the best equipped to supply it.

The Demand at Home

Before the war the United States had 22.3 cows per hundred people. In 1918 the ratio was 22.1. Dairy cows increased 13.7% since 1910 and population 14.3%. It is plain that a much greater increase must be made to keep pace even with the demand here.

The United States Government started a campaign in 1918 to show the food value of dairy products and increase their consumption. The National Dairy Council has been doing the same thing by advertising. National prohibition is reported to be increasing the demand everywhere for milk and ice cream. All over the country, buildings in good locations that were used as retail liquor establishments are being turned into ice cream and soft drink parlors, with a corresponding increase in ice cream factories and production.

Enormous Increase of Exports

This country has increased its exports and decreased its imports of dairy products enormously since 1914. Butter exports were seven times, cheese exports twenty-seven times, condensed milk fifteen times, the pre-war figures in the year ending June 30, 1917. Table No. 10, furnished by the United States Dairy Division, shows the totals and comparisons for six years, 710,000,000 pounds imported in 1914; 1,930,000,000 pounds exported in 1918.

The Demand Abroad

Carl Vrooman, Assistant Secretary of Agriculture, says: "Dairy herds of the Old World are

TABLE NO. 10
U. S. BALANCE OF TRADE IN DAIRY PRODUCTS
All dairy products are figured in terms of milk.

| | | Imports | |
|-----------|--|---------------|--------|
| 1913..... | | 375,000,000 | pounds |
| 1914..... | | 710,000,000 | pounds |
| | | Exports | |
| 1915..... | | 210,000,000 | pounds |
| 1916..... | | 750,000,000 | pounds |
| 1917..... | | 1,475,000,000 | pounds |
| 1918* | | 1,930,000,000 | pounds |

*Estimated.

depleted to an appalling degree. There is not a country in Europe where people have enough dairy products, and this process of depletion has made a demand ten-fold greater than the supply. Europe comes to us with outstretched hands and says: "We must have milk; give us butter, give us cheese, give us dairy cattle to build up our dairy herds again."

A letter to FARM, STOCK & HOME from the Food Administration as to the dairy situation in Europe on May 7, 1919, says:

"It is known from reports of representatives now in Europe that there are insufficient meats and fats in Europe to supply their needs. Due to existing conditions, it is impossible to measure their needs statistically. According to the Allied Relief Association, the need applies more to fats and similar foods rather than to proteins. The herds of cattle in most of Europe have been reduced somewhat below normal, but there are no figures available showing the proportion that are dairy cattle. In most of the European countries, however, the majority are dairy cattle. It is probable that in the reduction of cattle a greater percentage of meat animals have been slaughtered than dairy cattle. The enclosed table gives the latest and most complete information which we have on the changes of number of cattle in Europe."—Edwin F. Gay, Director, Central Bureau of Planning and Statistics, Washington, D. C.

TABLE NO. 11
NUMBER OF LIVE CATTLE ON HAND BEFORE AND AFTER THE OUTBREAK OF WAR IN EUROPE

| Country | Before the War | | Latest Date | | Change | |
|----------------------------|----------------|------------|-------------|------------|------------|-----------|
| | Date | Number | Date | Number | Decrease | Increase |
| Belgium | 1913 | 1,849,000 | 1918 | 400,000 | 1,449,000 | ..... |
| France | 1913 | 14,788,000 | 1917 | 12,443,000 | 2,345,000 | ..... |
| Italy | 1914 | 6,646,000 | 1918 | 5,400,000 | 1,246,000 | ..... |
| Roumania | 1911 | 2,667,000 | 1917 | 1,050,000 | 1,617,000 | ..... |
| Denmark | 1914 | 2,463,000 | 1918 | 2,142,000 | 321,000 | ..... |
| Netherlands | 1913 | 2,097,000 | 1917 | 2,301,000 | ..... | 204,000 |
| Norway | 1914 | 1,146,000 | 1916 | 1,119,000 | 27,000 | ..... |
| Sweden | 1913 | 2,721,000 | 1917 | 3,020,000 | ..... | 299,000 |
| Switzerland | 1911 | 1,443,000 | 1916 | 1,616,000 | ..... | 173,000 |
| Spain | 1913 | 2,879,000 | 1916 | 3,071,000 | ..... | 192,000 |
| United Kingdom | 1914 | 12,145,000 | 1918 | 12,311,000 | ..... | 166,000 |
| Germany* | 1913 | 20,443,827 | 1918 | 17,226,855 | 3,216,972 | ..... |
| * Without Alsace-Lorraine. | | | | | | |
| Total | | 71,287,827 | | 62,099,855 | 10,221,972 | 1,034,000 |
| Net change | | | | | 9,187,972 | |

Where the World's Supplies Must Come From

So much for the demand. Where is the increased supply to come from? This survey proves that the FARM, STOCK & HOME group is the logical place to look to for greater production than ever. It is already the best able to supply present demands. It is the natural dairy region of America.

Dairying on the Cut-Over Lands

In their cut-over timber lands, Minnesota and Wisconsin have the finest natural but undeveloped dairy region in the country. Clover grows here like a weed. Corn acreage is advancing northward every year and corn can now be grown anywhere for ensilage. There are thousands of lakes and

running streams. Settlers here find that cows and dairying solve their problems better than any other system. Both states have plans for helping them with road building and land clearing. A large new dairy development is at hand. Markets are nearby, because consumer population in the mining districts north of Duluth and Superior has multiplied more rapidly than the farming development.

Besides these lands, the great plains and valleys of the Dakotas, and of Montana east of the Rockies, are about the only unoccupied pioneer farming country left in the United States. They offer a fine field for dairy expansion as shown below.

TABLE NO. 12

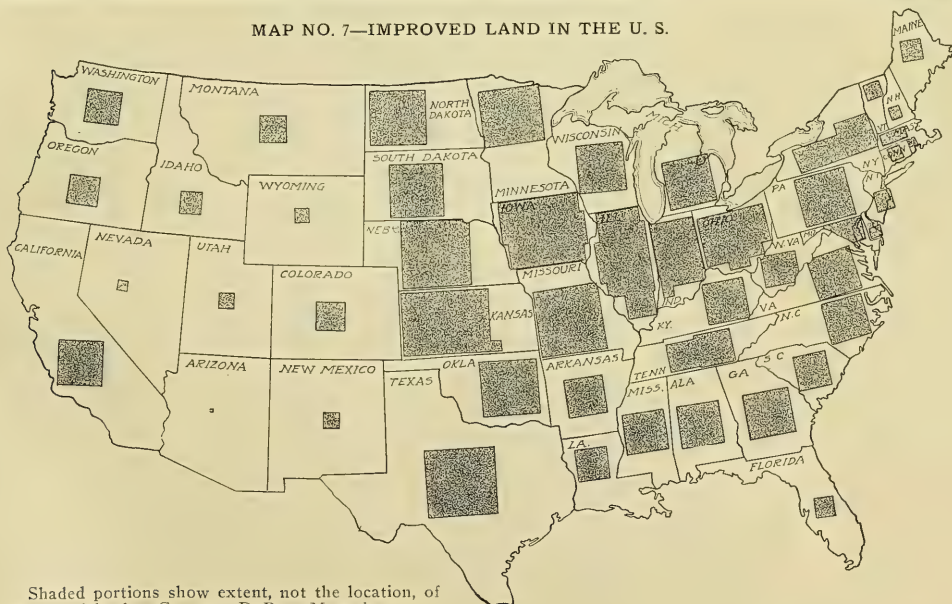
INCREASE IN NUMBER OF FARMS SINCE 1909
Estimates furnished by U. S. Department of Agriculture.

| | | Crop Acreage Increased |
|------------------------|--------------|------------------------|
| MINN. Increased..... | 863 Farms | 1,271,563 Acres |
| WIS. Increased..... | 4,873 Farms | 770,920 Acres |
| N. DAK. Increased..... | 20,640 Farms | 2,409,244 Acres |
| S. DAK. Increased..... | 18,356 Farms | 3,618,228 Acres |
| MONT. Increased..... | 9,786 Farms | 2,996,887 Acres |

Compare these States with those in opposite column:

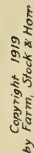
| | | Crop Acreage Increased |
|--------------------------|-------------|------------------------|
| Iowa Decreased..... | 2,044 Farms | 1,238,075 Acres |
| New York, No increase. | | 121,269 Acres |
| Ohio Decreased..... | 2,045 Farms | 30,390 Acres |
| Pennsylv'a. Decreased... | 1,295 Farms | 550,438 Acres |
| Illinois Decreased..... | 6,872 Farms | 1,453,084 Acres |
| Indiana, No Increase... | | 1,432,605 Acres |

MAP NO. 7—IMPROVED LAND IN THE U. S.



Shaded portions show extent, not the location, of improved lands.—Courtesy DuPont Magazine.

CARS, FORD CARS AND TRUCKS IN U.S. 1919
ONE CAR TO (18) PEOPLE



AMERICA'S GREATEST AUTOMOBILE AND ACCESSORY MARKET

More Cars Per Capita than in any other Group of Six States.

There is one automobile to every ten persons in the Farm, Stock and Home group, as compared with one to every eighteen in the United States. Only Iowa and Nebraska have a higher car registration per capita. Dairying creates the most wealth to buy automobiles. Copies of these maps furnished free.

Merchandising Opportunities

A complete survey of the farm market and demand for good merchandise in the Northwest has been made by the Service Department of FARM, STOCK and HOME.

It reveals some wonderful opportunities for manufacturers. Hundreds of our readers have told what equipment they have—what merchandise they are buying—what their plans are for the future. A typical example is shown below.

The facts can only be briefly outlined in this booklet. Our advertising representatives will gladly give you further details. You are invited to ask for this service which is free.

A large amount of dairy statistical data has also been collected in preparing this booklet. It is available to anyone asking for it.

The Dairyman as a Ready Buyer of Good Merchandise

Perhaps the best way to picture the double-profit dairy farmer as a customer for all kinds of quality goods is to give a typical example, chosen from the survey, because it represents an average dairyman in the FARM, STOCK & HOME group. It shows the type of farmer who reads the paper and also the wide variety of merchandise he buys. He writes:

Farm—Owns his own, 480 acres worth \$50 an acre, or \$24,000.

Home—Frame dwelling 26x30, hardwood floors—has pump with engine and pressure tank, cistern and bath room. Planning hot water heat in 1919.

Home Furnishings—Has phonograph, guitar, typewriter, engine-driven washing machine. Buys Ivory soap by box.

Clothing—Buys made-to-order suits.

Magazines—Takes FARM, STOCK & HOME, Successful Farming, Farm & Fireside, Literary Digest, Non-Partisan Leader, Shorthorn World, two dailies and three country weeklies.

Co-operative Concerns—Member Co-operative Creamery and Farmers' Co-operative Elevator Co.

Business Man—Keeps a record of farm accounts.

Other Buildings—Barn 28x48 and 16x48, with 60-ton hay mow and lightning rods; a 6,000-bushel granary with power grain cleaner; a 16x18 hog house; a 14x20 poultry house.

Fences—Steel gates; woven wire fencing.

Paints—Uses 10 gallons paint a year. Paints buildings every two years; also wagons and drills. Buys shingles.

Livestock—One Shorthorn bull, 10 milch cows, 14 horses, 5 hogs, 50 chickens.

Farm Power—Automobile, tractor with individual thrasher, grinding engine, pumping engine. Planning for electric power in 1919.

Mail Order Buying—About \$150 to \$300 a year.

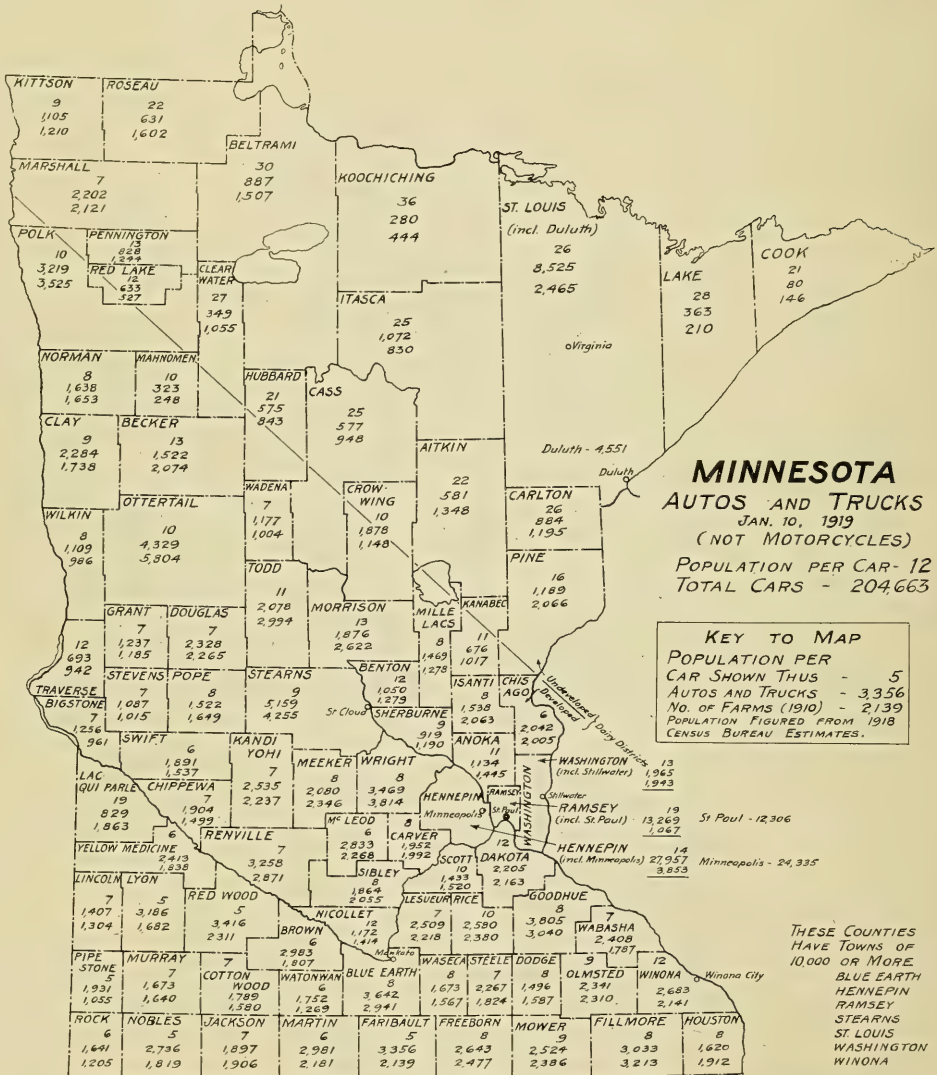
Machinery and Equipment—Wagon, grain tank, gang and sulky plows, manure spreader, grain drill, disc harrow, soil packer, binder, thrasher, mower, hay rake, cream separator, feed grinder, silo filler, corn harvester, cultivator, planter, tank heater, seed corn tester, 10 sets harness.

Planning to Get in 1919—New machine shed; silo, incubator, rural telephone, electric power, hot water heat.

Expresses need for—Better buildings, better roads, better markets, a livestock shipping association.

Adds this remark: "FARM, STOCK & HOME is doing splendid work. I consider it 100% efficient, giving splendid service, and I, for one, appreciate it. In a few years hence grain raising will be a side issue here, as people are going into livestock rapidly. The more livestock you preach the better for us all."

MAP No. 9



CREAMERIES CREATE AUTOMOBILE SALES

Compare with map No. 4, "Cows and Creameries in Minnesota" and with Table No. 14 on the opposite page. All of the Creamery Counties are the great automobile buying counties. Copies of these maps furnished free.

Copyright 1919
Farm, Stock & Home

Merchandising Opportunities

AUTOMOBILES

Our Automobile Survey sent free on request.

The influence of this dairying system on automobile sales is strikingly shown by the map on the opposite page and on page 22. The United States had one automobile to every 18 people in January, 1919, and the FARM, STOCK & HOME Group had one to every ten people. The only other group of states that compares with this high percentage of car ownership is Nebraska, Iowa and Kansas.

Farmers Own the Most Cars

Careful surveys in Minnesota show that at least 55% of all cars are owned by farmers. This estimate is borne out by the map of Minnesota showing the car registration by counties, on the opposite page. The line drawn on the map from Chisago County on the east, to Polk County in the northwest, divides the highly developed dairy districts of the southern half from the rich lumbering, iron mining and undeveloped dairy districts of the northern half. Compared with Map No. 4, "Cows and Creameries in Minnesota," on page 10, it shows conclusively that the counties where creameries are best developed have also the highest car registrations per capita. It is also shown by Table No. 13, below.

Our Automobile Survey

FARM, STOCK & HOME has made a survey which proves that the paper has actually influenced the sales of cars to its readers during the past seven years. It shows the advertising lineage carried and the number of cars owned by its readers in representative Minnesota counties, and will be sent free on request.

The growth of this industry in the FARM, STOCK & HOME Group is shown by Table No. 14, below.

TIRES

The farmer does not have the benefit, in many cases, of paved roads, but must take what lies before him. This makes his tire consumption higher than that of town people, who drive on paved streets or on good roads near to town. Naturally he is a large buyer of tires, and a close student of tire advertising to find out the best one for his purpose. A survey of FARM, STOCK & HOME readers shows the following:

TIRE INVESTIGATION

| | |
|--|------|
| Number of Subscribers Reporting..... | 178 |
| Influenced by Tire Advertising in farm papers..... | 76.3 |
| Buy Tires from Mail Order Houses..... | 23.6 |
| Buy Tires from Hardware Dealer..... | 17.9 |
| Buy Tires from Garage..... | 58.5 |

It is surprising how closely the percentage of mail order tire buyers checks with the percentage who say they are not influenced by tire advertising. On the basis of FARM, STOCK & HOME's 52,678 automobile owners, as shown by a recent survey, we have 40,193 tire customers who state they buy those advertised in farm papers. On a low average of only two casings and one tube a year per owner, we have to offer tire manufacturers a possible market for 80,386 tires and 40,193 inner tubes; which, on a conservative estimate, gives an annual retail value of over \$2,000,000.

These figures do not take into account at all the mail order buyers, a certain percentage of whom are possible prospects for standard made tires.

TABLE NO. 13

AUTOMOBILE REGISTRATIONS IN ALL THE MINNESOTA TOWNS OF 5,000 to 20,000 INHABITANTS, SHOWING TO WHAT EXTENT DAIRYING ENABLES FARMERS TO BUY CARS

Notice how Car Ownership in the Creamery Counties exceeds that of the other counties.

| Town | Population 1910 | County | Creameries No. Cars, in County | 1917 | Industry of County |
|--------------|--------------------|------------|-----------------------------------|-------|-----------------------|
| Bemidji | 5,099 | Beltrami | 4 | 391 | Lumbering-Mining |
| New Ulm | 5,648 | Brown | 12 | 771 | Farming only |
| Owatonna | 5,658 | Steele | 24 | 1,039 | Rich Dairy Farming |
| Little Falls | 6,078 | Morrison | 18 | 513 | Lumbering-Dairying |
| Albert Lea | 6,192 | Freeborn | 26 | 1,069 | Rich Dairy Farming |
| Fergus Falls | 6,887 | Ottertail | 28 | 839 | Good Farming |
| Austin | 6,960 | Mower | 13 | 829 | Good Farming |
| Eveleth | 7,036 | St. Louis | 9 | 226 | Mining-Lumbering |
| Crookston | 7,599 | Polk | 20 | 627 | Good Farming |
| Rochester | 7,844 | Olmsted | 10 | 1,142 | Good Farming |
| Brainerd | 8,526 | Crow Wing | 5 | 544 | Lumbering-Mining |
| Hibbing | 8,832 | St. Louis | 9 | 580 | Minine-Lumbering |
| Faribault | 9,001 | Rice | 13 | 871 | Fine Farming |
| Red Wing | 9,048 | Goodhue | 13 | 652 | Small Farming Area |
| Stillwater | 10,198 | Washington | 6 | 572 | Small Farming Area |
| Mankato | 10,365 | Blue Earth | 18 | 1,326 | Rich Farming |
| Virginia | 10,473 | St. Louis | 9 | 558 | Mining-Lumbering |
| St. Cloud | 10,600 | Stearns | 29 | 1,077 | Good Farming |
| Winona | 18,583 | Winona | 20 | 1,047 | Good Farming |

TABLE NO. 14

REGISTRATION OF CARS AND TRUCKS FOR SEVEN YEARS

| | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 |
|--------------|--------|--------|---------|---------|---------|---------|---------|
| Minnesota | 29,000 | 37,800 | 67,365 | 91,829 | 137,500 | 191,500 | 201,127 |
| Iowa | 47,188 | 70,294 | 106,087 | 139,808 | 172,791 | 278,213 | 327,500 |
| Wisconsin | 24,578 | 34,646 | 53,180 | 81,371 | 117,603 | 164,531 | 196,844 |
| North Dakota | 8,975 | 12,968 | 17,348 | 24,678 | 41,761 | 62,993 | 70,531 |
| South Dakota | 14,481 | 14,578 | 20,080 | 29,336 | 44,271 | 67,159 | 84,003 |
| Montana | 2,000 | 5,686 | 10,706 | 14,520 | 24,585 | 41,896 | 50,125 |

Merchandising Opportunities

ACCESSORIES

The farmer is a larger buyer of accessories than the city man, because he is farther removed from garage service. His business also demands more mechanical skill than that of the average city man. Often he is a skilled mechanic, accustomed to taking care of his own machinery and automobile instead of depending upon others. Minor repairs are nearly all attended to on the farm. This dairy region offers a great opportunity for the accessory manufacturer.

FORD CAR ACCESSORIES

Minnesota had 96,750 Ford cars in January, 1919; Wisconsin, 95,492; Iowa, 139,970; North Dakota, 37,053; South Dakota, 41,664; Montana, 24,646, a total of 435,575, as shown by the map on page 23.

GASOLINE ENGINES AND FARM POWER

Our Farm Power Survey Sent Free on Request.

Hardly a dairy farm in this region is without a gasoline engine. But the demand for more engines and better ones is constant. Every year new engines are bought to replace old ones. The demand for these small, compact power units grows as dairy herds increase. Many farmers use two or three, in various locations, in the home, milk house, barn or barnyard. They saw wood, pump water, hoist hay and grain, wash clothes, grind feed and run dynamos, milking machines and cream separators, doing all sorts of odd jobs too small for tractor belt work. They create a demand, too, for all sorts of auxiliary power equipment.

Farms in the Northwest Are Large

The average sized dairy farm is said to be about 170 acres and is extensively as well as intensively cultivated. In Minnesota, however, the average size of all farms is 177.3 acres, North Dakota 382.3, South Dakota, 335.1, Montana 516.7. The average for all farms in the United States is 138.1 acres. Minnesota had in 1910, 111,919 farms of more than 100 acres, North Dakota 72,474, South Dakota 73,309, Montana 23,243.

FARM, STOCK & HOME has cultivated the Farm Power idea, with the first Farm Power Department started in any general farm paper and giving continuous service since 1910. It offers the manufacturer a power tilted field for his advertising seed.

MOTOR TRUCKS

Our Motor Truck Articles Sent Free on Request.

Hauling is one of the great problems on dairy farms. Milk and cream must be hauled to creamery, cheese factory, milk station, condensary or to town, one to ten miles away, usually by team and wagon, often with two men, and the round trip made daily.

Good roads everywhere are coming in Minnesota. The state is preparing to build nearly 7,000 miles of hard paved highways. With this comes a larger demand for motor trucks from dairymen, the class of farmers best able to buy them, to cut out the slow and expensive hauling by team.

Already co-operative motor truck companies are forming, to handle farm freight traffic. The lesson, of the

ADVANTAGES OF DOUBLE-PROFIT DAIRYING

Restores the fertility of the soil.

Utilizes unsalable roughage.

Makes waste lands productive.

Supplies steady employment for labor.

Affords a ready-cash market.

Furnishes a monthly cash income.

Creates a demand for good merchandise.

Gives farmers the money to buy quality goods.

economy and necessity for trucks was driven home by the war, when thousands of farmers suffered losses through lack of cars and shipping facilities.

TRACTORS

Our Farm Power Survey Sent Free on Request.

The FARM, STOCK & HOME group has always been known as the greatest tractor market and Minneapolis as the heart of the industry. It still offers unlimited possibilities for tractor sales. The survey shows that diversified and dairy farms are using tractors about as extensively as grain farms. Moderate sized tractors fit into the power plan of the dairy farm to good advantage and give a service which nothing else supplies.

Dairymen Are Power Farmers

The dairyman is also the type of farmer who is first to motorize his farm. It helps to solve one of his greatest problems—labor. Modern forms of farm power appeal to him because, besides field work, tractors have more belt work to do on dairy farms. The U. S. Department of Agriculture says:

"The average value of implements and machinery on dairy farms was materially greater (1910) than on all farms, or on any other group of farms with large average area."

CREAMERY SUPPLIES

Since the dairymen own their own creameries and manage them as directors, they influence the buying also of creamery supplies and machinery. Milk cans and dairy supplies are often distributed through creameries instead of through stores. While creamery journals are useful to reach the buttermaker, FARM, STOCK & HOME reaches the stockholders and directors who really decide what is to be bought.

MANURE AND STRAW SPREADERS, LITTER CARRIERS

The two valuable by-products of dairying, fertilizer and straw, can be utilized in only one way. They have no value unless they are spread on the soil to renew its fertility. Dairy farmers constantly enrich their fields in this way. An intensive dairy region is therefore an extensive spreader and litter carrier market. Some interesting evidence of FARM, STOCK & HOME'S ability to produce spreader sales will be sent free on request.

COMMERCIAL FERTILIZERS

Very little except natural fertilizer is used now on Northwestern farms, but there comes a time when farm lands, however fertile, require the additional quickening impulse of some kind of commercial fertilizer. This applies particularly to lands that have advanced in value to \$100 an acre or more, as they have in nearly all of the well developed dairy counties of southern and central Minnesota, Wisconsin and South Dakota. Here lies another latent opportunity that manufacturers should realize. Educational advertising would develop good business in a few years.

INDIVIDUAL THRESHERS

Power on the farm and increased wheat growing has made a large demand for individual separators, small

Merchandising Opportunities

enough to be run by moderate sized tractors. This demand will increase as tractors are more widely distributed and as long as wheat prices continue to be as attractive as in 1918 and 1919.

BUILDING MATERIALS

Our Building Survey Sent Free on Request.

The Dairyman is the master builder. Good buildings are an absolute necessity, especially in the cold climate of the FARM, STOCK & HOME group. Dairy cattle cannot be housed in straw sheds or left to shift for themselves. They must have good shelter, must be milked twice daily and kept clean, contented, well fed and well watered.

The dairy barn is the dairyman's factory. He spends more time in his place of work than the average business man. He wants his own surroundings pleasant, so he lavishes his wealth on his buildings. They must be warm, dry, comfortable, convenient, well lighted and well ventilated. The floors are often of concrete, the materials of the best. The survey shows that more than 50% of the subscribers are preparing to improve by building new houses, barns, hog and poultry houses, sheep pens, garages, additions, concrete floors, and adding heating plants, silos, water supply and electric lighting systems.

A tremendous market for all kinds of building materials, cement, lumber, insulation, roofing, shingles and fencing only awaits advertising development. The U. S. Department of Agriculture says:

"The average investment for dairy farms was materially higher (1910) than for all farms. The buildings on dairy farms had an average value per farm nearly double that for all farms."

OTHER BUILDINGS

Dairy products must be cleanly handled. So milk houses, apart from the barns, are a necessity as well as separate bull barns, calf barns, machine sheds, poultry houses, and hog houses. Tenant houses are being built to keep married hired-help contented. The survey shows how many of each kind of buildings are being planned.

PAINTS

It follows that dairymen are great paint users. They take pride in the good appearance of their buildings. The survey shows the average amount of paint used yearly and also that subscribers repaint their buildings on an average of every five years, creating a large demand in addition to that made by new buildings.

HEATING PLANTS

Manufacturers who use FARM, STOCK & HOME to advertise improved heating systems are going to reap a harvest. Subscribers say they are planning to buy them freely. Heating is an absolute necessity in the Northwest, a problem that receives serious consideration.

CEMENT MIXERS

Increased building brings a demand for a small, moderate priced batch mixer, large enough to mix concrete for walks, floors, foundations, feeding platforms, footings

HUMAN FOOD PRODUCED BY FARM ANIMALS FROM 100 POUNDS OF DIGESTIBLE MATTER CONSUMED:

By Jordan

| | Marketable Product, Pounds | Edible Solids Produced, Pounds |
|-----------------------|----------------------------|--------------------------------|
| Cow (milk) | 139.0 | 18.0 |
| Pig (dressed) | 25.0 | 15.6 |
| Calf (dressed) | 36.5 | 8.1 |
| Poultry (eggs) | 19.6 | 5.1 |
| Poultry (dressed) .. | 15.6 | 4.2 |
| Lamb (dressed) | 9.6 | 3.2 |
| Steer (dressed) | 8.3 | 2.8 |
| Sheep (dressed) | 7.0 | 2.6 |

and the ordinary jobs that one or two men can handle.

HOUSES AND HOME FURNISHINGS

Our Home Survey Sent Free on Request.

John Andrews says: "Where there is a cow, there is a home." And since cows must be milked, dairymen must be at home every day of the year. As the dairy herd grows, so does the home. The survey shows farm homes equipped far above the average city homes, with conveniences of all kinds, power washers, vacuum cleaners, fireless cookers, furnaces, bath-rooms, water supply and electric systems, and many planning to add to them.

MUSICAL INSTRUMENTS Included in Home Survey.

Pianos, player pianos, phonographs, and other musical instruments are in good demand on dairy farms, because the work is confining and farmers must furnish their own amusements. Northwestern music dealers say that they buy the very best grade of musical merchandise of all kinds and the survey shows a wide variety in use.

FOOD PRODUCTS

The Department of Agriculture has found by a survey* that about \$447.92 worth of food is consumed annually by the average farm family of 4.8 persons. Of this, \$261.76, or 58.4%, is furnished by the farm, while \$186.16, or 41.6%, is bought. The averages in the Northwestern states were about the same, so that this region offers a large opportunity for the food product manufacturer. Further information in detail will be furnished on request.

SOAP AND LYE

Farmers are buying trade-marked soaps in box lots, according to the answers received to the questionnaire, and yet many state, too, that they make soap at home for laundry purposes besides. The market for both soaps and soap making materials is therefore a large one. The names of the brands mentioned will be furnished free on request.

KITCHEN UTENSILS

The farm woman is her own housekeeper. She cares for her own utensils and dishes, takes pride in their cleanliness and convenience, and buys the very best. What a fine opportunity this affords makers of fine cutlery, silver and plated ware, aluminum goods and enameled ware.

Kitchen Cabinets—Fireless Cookers—Canning Outfits

The convenience of the kitchen cabinet and the fireless cooker appeals strongly to farm housewives and they are buying them readily. Yet manufacturers usually limit their advertising appeal to the town and city women who hire maids.

No other class of housewives has such an abundance of fruits and vegetables to preserve by canning as the farmer's wife. Food conservation has been so thoroughly

* Bulletin No. 410, "Value to Farm Families of Food." U. S. Department of Agriculture.

Merchandising Opportunities

preached in FARM, STOCK & HOME the past three years that canning outfits are in good demand if well advertised.

WATER SUPPLY SYSTEMS

Our Water Supply Survey Sent Free on Request.

Perhaps nothing is so much desired by farm women as something to lift from their shoulders the back-breaking burden of carrying water. FARM, STOCK & HOME recently asked its women readers: "What Would You Do With \$300.00?", and nearly every reply mentioned "running water supply" as their greatest wish. The survey shows a large demand for these systems.

ELECTRIC LIGHTING SYSTEMS

Our Electric Lighting Survey Sent Free on Request.

A surprising number of subscribers (25%) say they are in the market already for electric lighting systems. The dairy farmer is the very easiest customer to sell, because his work, early and late, requires good light in barn and barnyard. Cows cannot be fed and milked nor milk handled safely in the dark or by lantern. The survey shows how many have gasoline, acetylene and electric systems and what the future demand is for each type.

BARN EQUIPMENT

Our Barn Equipment Survey Sent Free on Request.

Dairy herds have outgrown the old equipment so fast that a large demand is shown for new stalls, stanchions, watering bowls, litter carriers, hay tools, water supply and ventilating systems, stock waterers, tank heaters, lightning rods, windows, cupolas and other barn accessories.

BARN AND CREAMERY VENTILATING SYSTEMS

Included in Building Survey.

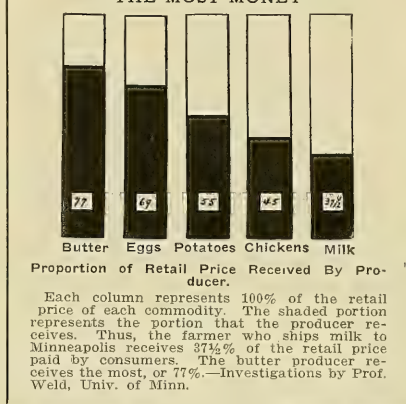
Every dairy barn and every creamery should have a ventilating system. Too many in the Northwest still do not have one, and the sales possibilities are large. One or two progressive manufacturers have entered the field and advertised attractively and persistently. They have built up a good demand already. The increases of dairying and creameries add still greater opportunities for sales and service.

CREAM SEPARATORS

Our Cream Separator Survey Sent Free on Request.

Minnesota has 157,000 farms in 1919, 135,000 dairy farm and only about 75,000 or 80,000 cream separators. Only 12 creameries take whole milk, while 619 of the 841 creameries take separated cream only. There is still a large market open for new separators, on farms that have none. Besides this, the tests conducted by the Dairy Extension Division show a surprising number of worn-out separators being used, which the cow-testers' work prove should be replaced. Educational advertising along this line should prove very profitable to separator manufacturers, in addition to creating new sales. Thousands of dairymen should be told that they need new machines. FARM, STOCK & HOME has always been

BUTTER MAKING GIVES FARMERS THE MOST MONEY



dairy cows its full value as roughage. This lesson was brought home sharply in 1916 and 1917, when silo owners were able to save their crop from the corn failure, by turning it into ensilage. The survey shows that thousands of new silos are being planned and built.

MILKING MACHINES

The shortage of labor during the war taught dairymen also the lesson of these labor-saving machines. It gave the industry a great forward push. Many farmers who regarded them as too good to be true have found them practical. There is still much educational work to be done, however, to convince the majority of dairymen. The industry is passing through much the same development problem as the cream separator in early days. Farmers still have to be shown. The survey and the inquiries from advertising prove this. The latent interest is keen, the potential market is unlimited, the advertising opportunity is tremendous.

CLOTHING

Our Clothing Survey Sent Free on Request.

Asked if they found it more economical to buy advertised clothing, of good quality, the response was almost unanimously: "Yes." Very few preferred cheaper grades and some wear tailor-made suits. Only a few manufacturers of high-grade clothing have apparently realized the possibilities of the farm market and have advertised to farmers persistently.

SHOES

Someone is going to get the cream of the work-shoe business some day by establishing a well known brand of farm work-shoes with persistent advertising. It has already been done for rubber boots and overshoes, but not for work-shoes. Someone, too, is going to reap a harvest by establishing a well known brand of high-grade shoes, suitable for farmers. The success of one or two general line shoe manufacturers that have used farm papers already proves the possibilities for other makers.

Merchandising Opportunities

POULTRY SUPPLIES

Our Poultry Survey Sent Free on Request.

Hand in hand with dairying go hog and poultry raising, doing their share to turn by-products into meat, eggs and profits. Women on dairy farms are usually the poultry owners. They buy incubators, brooders, feeders, waterers, and all kinds of poultry supplies, besides hatching eggs and pure-bred breeding stock. Our building survey shows a large number interested in new chicken houses and hog houses.

HOG SUPPLIES

Our Swine Survey Sent Free on Request.

Feeding troughs and tanks, self feeders, hog houses, hog house windows, hog remedies and everything required to make pigs grow fat and happy, find a good market in dairy regions. The rapid increases of hogs in the Northwest shown on pages 12 and 13 indicate also a great increase in this demand. The present high prices will encourage a further growth of hog raising, which lends itself easily to rapid expansion at such times.

STOCK FOODS AND REMEDIES

Dairy cattle require concentrated feeds not raised on farms. Wheat bran has been the Northwestern dairyman's standby. But its scarcity and price during the war diverted his attention to other feeds. Prepared concentrates and balanced rations and their relative values are being more seriously considered than ever. The manufacturer that seizes this opportunity can cash in on this demand.

FARM, STOCK & HOME does not accept the advertising of condimental stock foods and has always protected its readers against their exaggerated claims. It admits only the legitimate feeds such as digester tankage, gluten feeds, alfalfa meal and any others that have real feeding value and are not extravagantly advertised. It censors also all stock remedy advertising, admitting only such as it believes to be reliable and honest. It has kept this field clean for the legitimate manufacturer, to whom it offers an exceptional opportunity.

FENCES AND GATES

Good livestock must be confined and protected, so woven wire fencing and steel gates find a ready sale wherever dairying flourishes. The increases in number of farms and cutting up of ranches and cattle ranges in the FARM, STOCK & HOME group give manufacturers good markets also. The survey shows some good opportunities.

FARM IMPLEMENTS AND SUPPLIES

Our Farm Equipment Survey Sent Free on Request.

As the dairyman is a regular farmer, plus, so his farm requires all the tillage tools and implements of an ordinary farm, plus many others. All established lines of farm implements find their best markets in well developed dairy districts, because a more diversified system of agriculture is practiced than where only a single crop is raised. All the farm processes are also more intensified with deeper plowing, deeper tilling, more careful seed selection, weed eradication, and soil cultivation. Dairying is a complex business and requires a tremendous variety of equipment.

MAIL ORDER BUYING

The survey shows that the subscribers buy most of their merchandise from home town merchants, depending on mail orders for goods not to be had in town. The example on page 23 shows \$150 to \$300 yearly mail order buying and is fairly typical of the replies received. This shows comparatively little trade diverted from the retailer, but also shows, in the aggregate, a tremendous

opportunity for mail order merchandise and legitimate catalog houses. City department stores that solicit mail orders can build up a fine business among farm people of good taste who want better things than country stores can afford to carry. This is practically an undeveloped opportunity. Detailed estimates from the survey will be furnished free on request.

DYNAMITE AND POWDER

Three great opportunities exist for manufacturers of explosives. The great Minnesota road building program is one of them. The state is preparing to spend \$25,000,000 within the next ten years to build hard paved roads.

The second lies in the undeveloped dairy regions of Minnesota and Wisconsin, shown on page 21. Here road building goes hand in hand with stump pulling and drainage. Thousands of acres of the richest dairy lands in America are now full of stumps that must either be pulled or blasted. Both states are encouraging immigration and land clearing and will do more of it in the future. The settler is not to be left to do all the development work alone, on his own resources, but will be aided financially. Thousands of rich acres also in Minnesota are marshy and require drainage to put them under cultivation.

A third opportunity is for hunting and sporting purposes. Minnesota and Wisconsin have thousands of acres of virgin forest, thousands of small streams and lakes and an abundance of fine game. Nearly every farmer is a sportsman, lives near to some woods, and shoots deer, ducks, quail, partridges, prairie chickens and rabbits. No region of America offers such an opportunity as this one for the sale of fire-arms and ammunition for sporting purposes.

SPORTING GOODS

The lakes and streams also make farmers great fishermen. Hardly a farm in these states is far removed from some fine lake or trout stream. Boats and fishing tackle, row boat motors, power boats and all kinds of sporting goods may be profitably advertised to farmers. This is a great opportunity very little appreciated by manufacturers in the past, but capable of unlimited development.

RAW FURS AND TRAPPING

The Northwest has always been a great source of fur wealth and the Twin Cities one of the world's greatest primary fur markets. Carlos Avery, Minnesota Game and Fish Commissioner, furnishes the following estimates, large numbers of which are trapped by farmers and farm boys:

FUR PRODUCTION, MINNESOTA, 1918

| | Number Caught | Value | Total Value |
|------------------|---------------|--------|-------------|
| Muskrat | 800,000 | \$1.50 | \$1,200,000 |
| Mink | 25,000 | 7.50 | 187,500 |
| Fisher | 1,000 | 25.00 | 25,000 |
| Marten | 500 | 10.00 | 5,000 |
| Fox, Red | 2,500 | 10.00 | 25,000 |
| Fox, Silver | 50 | 150.00 | 7,500 |
| Fox, Cross | 300 | 30.00 | 9,000 |
| Raccoon | 5,000 | 5.50 | 27,500 |
| Lynx | 500 | 20.00 | 10,000 |
| Bobcat | 1,000 | 3.00 | 3,000 |
| Skunk | 100,000 | 6.50 | 650,000 |
| Weasel | 100,000 | 1.00 | 100,000 |
| Bear | 300 | 12.00 | 3,600 |
| Wolf | 20,000 | 9.00 | 180,000 |
| | 1,056,150 | | \$2,433,100 |

The Men Who Founded the Double-Profit System

Dairying in Minnesota is a living monument to the foresight and energy of the two men who contributed most to its up-building, Prof. T. L. Haecker, "Father of the Co-operative Creameries," and the late Sidney M. Owen, their chief sponsor.

The value of their share in its development is no longer a matter of opinion. It has been officially recognized, written into its history and both men highly honored by the state.

A history prepared by the State University and distributed as a bulletin* says that the real development began in 1891, when Prof. Haecker came from Wisconsin to build it up. The same year Sidney M. Owen became a University Regent, a position he held at his death. For many years they both traveled all over the state, showing farmers how to organize co-operative creameries and to establishing the industry. Mr. Owen's paper, FARM, STOCK & HOME, was their principal mouthpiece. Prof. Haecker was its dairy editor. The paper's history is so closely connected with that of the industry that one can not be considered without the other.

First Paper to Advocate Dairying.

Mr. Owen had established FARM, STOCK & HOME in 1884, just one year before the School of Agriculture and the State Dairy Department. In the very first issue he began to advocate dairying as follows:

"The Northwestern farmer must raise less grain and go more into general farming. No soil, no climate, in the temperate zones of the earth, is better adapted. Less grain and more general produce, less grain and more stock; and to point out, to lead, or rather to let farmers themselves show how this is best accomplished is the mission of FARM, STOCK & HOME."

How the Farmers' Creameries Were Started.

The history states: "On account of the important role played by Prof. Haecker in the development of the industry a few points of his life will be given. About 1890 the dairy industry entered upon a new stage in its development. From that time the production of butter in factories has increased enormously."

"The State University Regents, acting on the recommendation that a competent man be secured to develop more dairying among farmers, called Prof. T. L. Haecker from the University of Wisconsin. He made a preliminary survey of the state in 1891 and found the industry in a poor state of development. The Babcock test and centrifugal separator were only just coming into use, one of the first separators being on J. J. Hill's farm. The slow gravity method was then used generally.

"In Freeborn County, however, were successful factories on a co-operative basis. This plan appealed to Prof. Haecker and for years he was active in promoting dairying and establishing these co-operative butter factories.

"The Clark's Grove Creamery, started in 1890 by some Danish farmers, was the first successful one on a non-stock basis. It became a

model for the co-operative factories of the Northwest.

Prof. Haecker Honored.

"In 1893, Prof. Haecker was made full professor in charge of the Dairy School, his work consisting of active promotion of creameries and dairying, instruction, and valuable research work. In 1907 he was made Professor of Animal Nutrition.

"He conducted a long series of feeding experiments, covering several generations of cattle, which have overthrown all previous standards and established the 'Haecker' standards, recognized universally as authority on dairy-cow feeding."

These were first published in FARM, STOCK & HOME as part of its service to dairymen, have been given wide distribution and commended by dairy experts everywhere.

Farm, Stock and Home's Share.

While the industry was young, much of this work was unappreciated. A political battle to keep him on the job had to be fought by FARM, STOCK & HOME. As editor, and as Regent, Mr. Owen kept alive the public interest necessary to support this great work until its value was apparent.

Another fight was against unscrupulous promoters, organizing creameries in communities not yet able to support them and unloading them at high prices. This left behind discouraged farmers and discredited the co-operative system. Prof. Haecker and Mr. Owen often called meetings to advise farmers not to start creameries until they had cows enough. This valuable service prevented many failures.

Still another battle was against the sale of condimental stock foods, for which extravagant claims were made by advertisers, whereas they had no real feeding value. The advertising columns of FARM, STOCK & HOME were not only denied them, but the whole fraudulent system of their manufacture and sale was exposed at a time when the manufacturers were spending hundreds of thousands of dollars annually for farm paper advertising.

Good Work Brings Good Results.

Further the history states:

"Farm journals in general and those devoted to dairying have been an important educational factor in producing better dairy farming. Prof. Haecker's book, 'Feeding Dairy Cows,' says:

"A representative of a well-known dairy journal went to western Minnesota to take a cow census and determine whether the reading of agricultural literature benefited the industry. He found that among those that read farm papers, the average yearly production was 4,442 pounds, while among those who did not, it was only 2,668 pounds."

Influence of Scandinavian Population.

"A relation exists between immigration and the localization of the two industries (butter and cheese). Wherever the Danes settled, we find the largest production of



OWEN HALL
Dairy building at Agricultural School, Crookston, Minn., named in honor of Sidney M. Owen.

*Minnesota Dairy and Food Department Bulletin No. 52, "Development of the Dairy Products Industry in Minnesota." A copy sent free on application to FARM, STOCK & HOME.

butter. Wherever the Swiss settled, we find cheese. All the leading butter-producing counties have received more of the Danish immigrants—Denmark being one of the greatest butter-producing countries."

Census tables are shown, proving that the great Scandinavian immigration into the Northwest is a large factor

in building up dairying. Besides the cream of northern Europe's best immigration, bringing over the best dairying ideas and methods, a constant stream of young new blood has come from Iowa, Illinois, Indiana and Ohio. It has made the FARM, STOCK & HOME group the most progressive farming region, leading the entire United States in the co-operative movement.

The University of Minnesota



In Memory of the eminent services of

Sidney Marcus Owen

in the development of agriculture and in country life affairs

This Testimonial

is presented upon the recommendation of the Faculties of the Department of Agriculture of the University of Minnesota, with the approval of the Board of Regents.

In Witness Whereof, it is signed and sealed by the President of the Board of Regents, the President of the University, and the Dean and Director of the Department of Agriculture.



Frederick D. Sawyer
PRESIDENT OF THE BOARD OF REGENTS

Henry L. Vincent
PRESIDENT OF THE UNIVERSITY OF MINNESOTA

A. D. Owens
DEAN AND DIRECTOR, DEPARTMENT OF AGRICULTURE

January 6, 1917

Minnesota Honors Founder of Farm, Stock and Home for His Part in Founding the Farmers' Creameries

Every year the University honors a few men, whose work in developing agriculture has been conspicuous. The late James J. Hill and Sidney M. Owen were among those chosen in 1917. Mr. Owen is the only farm paper editor to receive this honor. The state also named the dairy building at the Agricultural School at Crookston "Owen Hall" in his honor, as shown on the opposite page.

Present Day Service to Farmers

The present day editorial service of FARM, STOCK & HOME fulfills the original purpose and idea of the founder, Sidney M. Owen, adapted to modern conditions by his son, Harry N. Owen, editor and publisher. He has just completed thirty years' continuous service on the staff.

This purpose is to give the farmer a broader and more valuable service than merely telling him how to farm.

Its farm-advice departments are complete, and their service is given to the readers freely and effectively. The editorial personnel, shown on the opposite page, forms an exceptionally able group of farm experts.

In addition to all this, however, a definite program of public service is carried forward by Mr. Owen.

It is this service that gives the paper its unique, definite personality—its own loyal, exclusive following, particularly among dairymen.

The Farmers' Champion

Mr. Owen chooses deliberately the difficult task of fighting the farmer's battles whenever he needs a champion,—instead of the easier one of merely giving him technical farm advice.

He seeks opportunity to initiate public movements, foster good legislation, correct marketing abuses, organize co-operative enterprises, expose frauds and protect farmers from political and promotion schemes.

This policy has been successful for more than thirty-five years. It was particularly useful during the war, making FARM, STOCK & HOME more popular than ever. Thousands of voluntary subscriptions and letters are being received commending its stand on war-time production questions.

Protecting Milk Producers

For example, his editorials convinced the Minnesota Public Safety Commission that their price fixed for milk was below cost and forced the fixing of a higher price. He was the only publisher to come to the milk producers' aid.

When the producers were indicted, for alleged price fixing, he fostered a bill to permit co-operative associations to fix prices in the same way that incorporated companies may do. This passed the legislature by a large majority after a bitter contest soon after Mr. Owen advocated it in January, 1919.

Increasing Wheat Production

He protested to Washington that the \$2.00 price fixed for wheat was too low, in an "Open Letter to Congress," February 1, 1918. Within 23 days the President raised it to \$2.20, then to \$2.26, and in July removed the restrictions that had prevented millers from competing with the Grain Corporation in wheat buying. The market price went up the first day to 15½@16½ cents over the fixed price—proving Mr. Owen's stand to be correct. Wheat has been selling ever since for more than the government price.

The increase of 26 cents alone, added \$977,000,000 to the farmers' buying power, \$72,000,000 of which came into the Northwestern wheat states. Naturally it stimulated production, helped farmers to help win the war and popularized FARM, STOCK & HOME.

Mr. Owen fought, too, for revisions of the Federal Grain Grades, which were working a great injustice to farmers and hampering wheat growing. His efforts secured two important changes that added several cents more to every bushel marketed.

Helping the Dairymen Grow Wheat

Table No. 15 shows how it helped Minnesota dairy farmers to increase wheat acreage.

TABLE NO. 15

| | Wheat Acreage | | Increase In | |
|-------------|---------------|-----------|-------------|------------|
| | 1918 | 1917 | Acres | Percentage |
| MINN. ... | 3,799,000 | 2,947,000 | 852,000 | 28.9% |
| N. DAK. ... | 7,770,000 | 7,000,000 | 770,000 | 11.0% |
| S. DAK. ... | 3,765,000 | 3,200,000 | 565,000 | 17.6% |
| MONT. ... | 2,062,000 | 1,727,000 | 335,000 | 19.3% |

From estimates furnished by the U. S. Department of Agriculture.

Preventing Food Losses

When Minnesota potato growers could not find a market for an unusually large crop, Mr. Owen advertised potatoes in city papers, brought buyers and growers together, secured shipping concessions and got the Food Administration to start its potato publicity campaign. All of which saved the growers thousands of dollars and the potatoes from decay.

The paper worked in harmony with the Minnesota Public Safety Commission by organizing a Marketing Committee throughout the state, with sub-committees in every county, an organization of about 600 members, which established a central marketing bureau for perishable products in St. Paul. This was a practical conservation service that saved money for the farmers and food for the consumer.

Solving Reconstruction Problems

Mr. Owen's purpose for the future is perhaps best outlined in a recent editorial as follows:

"My idea is to find what the farmers want and then help them get it. I regard F., S. & H. as being in the position of an attorney for the farmers and that all public questions should be considered from the standpoint of the farmers, and every effort made to have them answered, so that the best interests, both economic and social, of the farmers shall be served.

This is not the easiest way to run a farm paper, nor apparently the most profitable, from a dollars and cents standpoint, but from my training and long association with my father, Sidney M. Owen, it is the only way that I can conduct F., S. & H. A paper steered along these lines cannot in the nature of things be neutral. It lays itself open to criticism, opposition, misunderstanding, abuse and a certain amount of financial loss from advertisers who may not like some things that may be said in the editorial columns. But if I can serve the farmers of the Northwest and help them to greater profits and better homes, I will take all these things with a smile as part of the day's work."

THE PEOPLE WHO MAKE FARM, STOCK and HOME THE FOREMOST FARM PAPER OF THE NORTHWEST

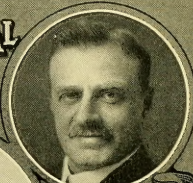
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ASSOCIATE EDITOR
AND HOME COUNCIL



W. H. PETERS
LIVE STOCK



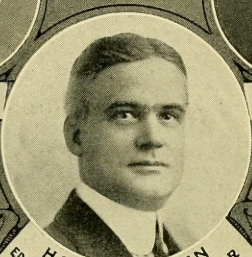
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DAIRY



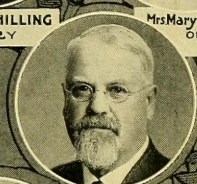
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PEOPLE



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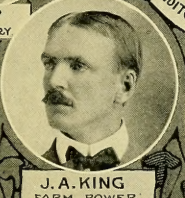
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EDITOR AND
PUBLISHER



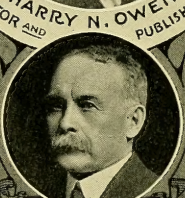
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POULTRY



J. L. MOWRY
FARM POWER



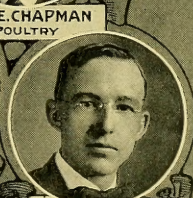
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FARM POWER



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APIARY



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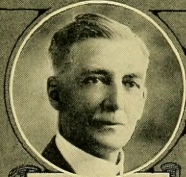
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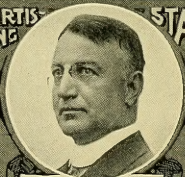
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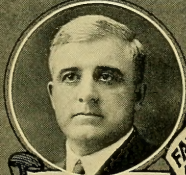
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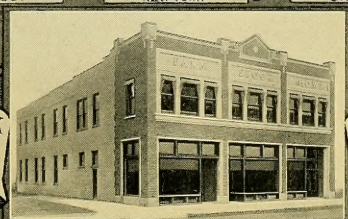


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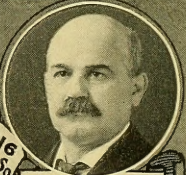


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